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Addresses.

THE EVIL OF EPONYMS.

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON LARYNGOLOGY AND OTOLOGY, AT THE FIFTY-FOURTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION AT NEW ORLEANS, MAY 5-8, 1903.

GEORGE L. RICHARDS, M.D.

FALL RIVER, MASS.

As Chairman of the Section on Laryngology and Otology of the American Medical Association, I bid you, the members of this Section, a most cordial welcome to the Fifty-fourth Session of this Association and to the Fifteenth Session of this Section. The secretary, Dr. Barnhill, and myself have labored for some months in the preparation of the annual feast, and I am sure that the menu which we have now ready for you will be in no way inferior to the banquets which we are accustomed to enjoy. For many years the papers which have been read before this Section of the American Medical Association have not been surpassed by the papers presented in the meetings of any of the special societies in the United States; while this Section has the great advantage that it has no red tape attached to it, but is open to every earnest worker in the field of laryngology and otology, the only requirement for admission being that of membership in the American Medical Association. Furthermore, each paper read has the advantage of publication through THE JOURNAL of the Association, which is to-day the largest, both in size and circulation, of any medical journal in the country. So, it seems to me, that membership in this Section is to be sought and estimated as a privilege by all workers in laryngology and otology, and especially by those workers in this field who are not at the present time fellows of any of the special societies.

It is customary at this time for the chairman to make a brief report of the general progress in his department for the preceding year. This was most ably done last year by my predecessor, Dr. Makuen, but, unfortunately, events have been such that I am unable to present to you any such review. I accordingly invite your attention for a few moments to a subject which I have not as yet heard discussed to any extent in any Section, yet which seems to me to need ventilating. I refer to the growing tendency with the advance of medicine and surgery to associate methods of treatment, and especially operations, with the names of their real or supposed originators, and to describe them under the heading of this or that person's operation or method of treatment. Laryngology and otology is not so great a sinner in this regard as some of the other specialties, yet we are far from guiltless, and much confusion results from this, the reader or auditor often being in doubt as to exactly what is meant by the particular operation described under someone's name.

It seems to me that a surgical operation should be described in anatomic terms, and a medical procedure or method of treatment in language sufficiently clear so that any physician familiar with the ground principles should know what is meant. The surgeon is expected to know his anatomy, but it is too much to expect him to remember every operation and to have a clear picture of it when it is referred to under the name of its originator. By the time Jones' operation has been two or three times modified by Smith and Brown, and is then inaccurately described by Robinson, who refers to it as Jones' operation, Jones himself would probably deny it as his child. If every operative procedure were described in anatomic terms, no confusion could arise, and the reader of an article would know exactly what was meant by the author. It might take a few more words now and then, but this would be more than compensated for by the clearness of description which would of necessity result. I very much doubt whether the members of the Section now present would care to take an examination on all of the following procedures, and yet these are terms which are used as descriptive of operations and methods in use in our specialty, and all of which I have culled in a cursory examination of some recent laryngologic and otologic literature. Furthermore, I am inclined to think that if we should all give our ideas in regard to them according to the mental picture which we have of the individual operation or procedure there would be much variation in the descriptions:

Schäffer's operation on frontal sinus.
Jansen's operation through the antrum.
Cooper's method of operating on the antrum.
Boenninghaus' operation on the antrum.
Walker Downey plan of closing frontal sinus wound.
Jansen's operation for removal of orbital roof.

Nebinger-Praun operation.	Zaufall's operation.
Mikulicz's operation.	Panse's flap.
Ogston-Luc operation.	Körner's flap.
Luc operation.	Schwabach's test.
Caldwell-Luc operation.	Rinne's test.
Killian's operation.	Weber's test.
Küster's operation.	Bezold's triad test.
Czerny's operation.	Asch operation.
Löffler's operation.	Roe operation.
Betzold's mastoiditis.	Sokolowsky's operation.
Schwartze's operation.	Watson-Gleason operation.
Hessler's operation.	Ingall's operation.
Stacke's operation.	Meyer-Asch flap operation.
Schwartze-Stacke operation.	Watson-Gleason flap operation.
Freudenthal emulsion.	

These examples could be multiplied much farther, but that is hardly necessary. We have all been sinners in this regard, and, to a certain extent, must be, since various procedures, such as Politzerization, Rinne's test and Meniere's disease, have acquired a place in the litera-

ture of medicine which is permanent. Even some of these names are wrongly used. What is described in literature as Meniere's disease does not, as a rule, correspond except very remotely to what was originally described by Meniere as labyrinthine vertigo due to hemorrhage in the labyrinth.

I wish, therefore, to emphasize the plea that in the papers which we write we describe procedures as such. It will make our literature always comprehensible to the next generation as well as to our own and add much to the accuracy of our work.

In conclusion, I welcome you all once more, and hope that in the ensuing discussions the remarks will be confined directly to the topic as treated by the reader rather than wandering off in the discussion of the general subject.

THE FIELD OF THE SECTION ON HYGIENE AND SANITARY SCIENCE.

CHAIRMAN'S ADDRESS BEFORE THE SECTION, AT THE FIFTY-FOURTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION AT NEW ORLEANS, MAY 5-8, 1903.

HENRY M. BRACKEN, M.D.
MINNEAPOLIS.

The question may reasonably be raised as to whether sanitary science should have recognition through a section in the American Medical Association. The answer, I think, must be in the affirmative.

Assuming this to be the fact, the next question is as to the function of the Section, and to this the answer should be: To look after those matters that have a specific bearing on sanitary science and hygiene. This would appear to embrace questions pertaining to vital statistics, water, sewage and other topics of like nature. The fact must not be lost sight of that these topics are fully considered by various sanitary bodies, such as the American Public Health Association, the Conference of State and Provincial Boards of Health of North America, etc. This Section should be working in harmony with these strictly sanitary associations.

I take it that matters pertaining strictly to preventable diseases should be dealt with in the Section on Practice of Medicine, rather than in this Section, otherwise there would be two divisions of medical topics, viz.: preventable and non-preventable diseases. Were this true the Section on Practice of Medicine would truly be in a sad plight, or there would be the lapping over of sectional work. This has been true in the past. Smallpox, during the past few years of this Association's work, has been discussed in the sections on medicine, on sanitary science and on skin diseases. Other diseases, such as tuberculosis, pneumonia, typhoid fever, etc., have been discussed in different sections. While to a certain extent this may be unavoidable, as a general principle it is decidedly faulty. The discussion of any one topic in different sections fails to secure full consideration because those interested in the subject are separated by sections. If a specific time could be set for any given paper in a section and this time be definitely known by all members of the Association, the objection to discussing one topic in various sections would be minimized, for members might go from section to section, following the subjects in which they were interested, but such a plan in this Association is quite impossible.

I take it as a recognized fact that all physicians who are sanitarians should be medical men, or at least interested in general medicine. If this is true every medical man in this Section should register in the Section on Practice of Medicine. If he registers in that Section he should attend it. What is to be gained by a small party of specialized medical men sitting together in this room to discuss a broad subject like that of tuberculosis or typhoid fever while the great body of medical men are discussing the same subject in one of the largest and most important sections of the Association—that on medicine? If we have anything good to say on the subject the general medical man should hear it. The general medical man can not discuss these or other subjects relating to preventable diseases without saying something which every sanitarian should hear.

I would suggest that in the future the work of this Section should be concentrated as much as possible on strictly sanitary or hygienic subjects. This work could be easily covered in two days.

The chairman of this Section should make it a point always to keep in touch with the chairman of the Section on Practice of Medicine. So far as possible, subjects relating to communicable diseases should be so arranged on the program of the Section on Practice of Medicine as not to conflict with sessions of this Section. The program has been so planned this year between Dr. Thayer, chairman of the Section on Practice of Medicine, and myself as to give a day in joint session. The subjects assigned for that day—typhoid fever, plague and yellow fever—are truly of as much interest to the sanitarian as to the medical practitioner. There are other subjects on the program of the medical section which should interest us, such as dysentery.

If we wish to become narrow in our studies as specialists we will organize ourselves into a little mutual admiration section. If, on the other hand, we wish to pursue the course that will be of greatest benefit to the profession, we will seek to be recognized as medical specialists thoroughly in touch with the great body of medical men. I hope all here will agree with me that the latter is the better course for us to follow.

Original Articles.

APPENDICITIS FROM THE STANDPOINT OF THE GYNECOLOGIST.*

HENRY P. NEWMAN, A.M., M.D.
CHICAGO.

In general, the diagnosis of appendicitis is not difficult to-day. Scarcely a decade and a half ago we were either losing the severe cases as acute peritonitis or inflammation of the bowels, or nursing them through the more protracted stages of typhlitis or perityphlitis, while the mild catarrhal cases were regarded as attacks of cholera morbus or congestion of the bowels. To-day the laity are almost as alert as the practitioners to recognize even the premonitory symptoms.

When we meet exceptions to this rule, the case is apt to be one associated with or simulating disease of the pelvic organs in the female. A case in point is one which was brought to my attention recently. A young girl of about sixteen years of age, healthy in appearance, but nervous and slightly anemic, suffered from recurrent attacks of pain and soreness in the lower abdomen.

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Obstetrics and Diseases of Women, and approved for publication by the Executive Committee: Drs. A. Palmer Dudley, H. P. Newman and J. H. Carstens.

These attacks occurred every three or four weeks, and were associated with the menstrual period. The distress would last but a few days, and this, the periodicity and her age, led her father, a physician, to bring her to me for gynecologic treatment. On examination I was unable to locate any disease of the genital organs, but made out, I thought, an offending appendix, and so informed the physician. Being a good all-round diagnostician and something of a surgeon himself, he had made his own conclusions, based on the prominent symptoms, and was not satisfied with the diagnosis. He took his daughter home, but later returned to the city, this time to consult a prominent surgeon. He did not fully verify my diagnosis, giving as his opinion that exploratory work should be done; that while the appendix might be involved, the principal trouble must be in the generative organs. The case went on for some months, but was finally operated on, and the appendix was found elongated, inflamed and attached at its extreme distal end to the right ovary. There was no other pelvic lesion.

The congestion incident to ovulation and the menstrual function was probably the cause of the lighting up of these exacerbations of catarrhal appendicitis, the supposed dysmenorrheal attacks being simply appendiceal colic.

After removal of the appendix, there was prompt and complete relief of symptoms. The case is interesting because of the pronounced symptomatology calling for relief, and because of the unusual attitude of the consultants, each one excluding his own specialty, the gynecologist diagnosing a surgical, and the surgeon a gynecologic disease.

This is only one of many cases in which the diagnosis of pelvic and appendiceal lesions may be obscured. In the opinion of some writers, differential diagnosis before operating in pus cases is not so very important as the indications are the same in either case. This is the view of Rostovzeff[1] of St. Petersburg, who insists on great care in examining the entire pelvic field at the time of operating. In salpingitis look for an inflamed appendix, in appendicitis look for disease of the adnexa. This is wisdom itself, but does not, it seems to me, compensate for the lack of an intelligent, clear diagnosis before operating.

The same author calls attention to the intensity of the infection caused by pus from an abscess in the appendix as compared with that from pyosalpinx. In his experience, general peritonitis due to appendicitis was invariably fatal, whereas a number of cases of general peritonitis originating in the genital organs terminated favorably.

Confusion in diagnosis may arise from the different localities in which the appendix is to be found. Its frequency in the pelvic basin has led to a distinct classification by Poncet and Dormoy of pelvic appendicitis. This nomenclature is not to distinguish it pathologically from appendicitis in any other locality, but to suggest the rational surgical treatment which should be through the vagina or rectum. Delore[2] cites some unusual instances of large collections of pus low in the pelvis, due to a diseased appendix, and evacuating through the rectum or vagina.

Downes[3] reports numerous cases of mistaken diagnosis in cases of appendicitis in the female.

Cumston[4] has had some interesting cases in which concomitant symptoms of appendicitis and tubo-ovarian diseases made diagnosis difficult, and says: "I could quote a number of other instances where lesions of the adnexa were taken for appendicitis." Deaver[5] says that in pyosalpinx due to appendicitis the symptoms are those of appendicitis in the pelvis, with dysmenorrhea and irregular menstruation. There is no history of gonorrheal infection and no indurated feeling of the vagina.

The work which Peterson is doing in this line is careful and accurate, and his further contribution will be received with attention. His first article[6] reports eighty-seven cases of abdominal section in nearly all of which the appendix has been examined as a routine procedure. At first it was examined, reported normal or abnormal, and removed only when diseased. Later it was removed as a routine practice whenever warranted by the condition of the patient. In his last thirty-four consecutive cases, the appendix was thus removed, and in just half this number, seventeen cases, was it found diseased. His collecting and tabulating of cases is specially instructive to the gynecologist, since the work was done with the idea of throwing light on the relation between appendicitis and pelvic disease, and he excluded from the clinic as nearly as possible all those cases where the diagnosis of pelvic disease was not absolutely clear. "Whenever," he says, "it was suspected that the primary focus was situated in the appendix the case was referred to the surgical clinic."

It therefore follows:

1. That the abdomen should be examined in all important pelvic cases and vice versa.

2. Functional disturbance in the pelvis may produce disturbance in the neighboring abdominal viscera.

3. In opening the abdomen for pelvic disease the appendix should always be examined.

4. If catarrhal, adherent or containing concretions, it should be removed.

5. It is not sufficient to break up or separate adhesions of an attached appendix.

6. As the macroscopic examination of the appendix is not always conclusive, its removal or "prophylactic appendectomy," when the abdomen is already open, should be determined by the best judgment of the surgeon and the condition of the patient in each individual case.

7. Any appendiceal or localized peritonitis may be an active factor in the immediate or remote production of intestinal obstruction. Strangulated intra-abdominal hernia has occurred as a result forty years after the primary lesion, and with entire freedom from symptoms during the long interim.

8. In opening the abdomen for intestinal obstruction the appendix and pelvic viscera should be looked to for the cause of trouble.

9. In removal of the appendix the invaginating operation should be done, or such other painstaking work as all intraperitoneal affections demand, to protect the wounded surfaces from subsequent adhesions.

10. The frequency of implication of the appendix by contact with diseased pelvic genital organs (Kelly cites twenty-seven adherent appendices in one hundred hystero-salpingo-oöphorectomies, and the figures of Peterson correspond) renders important not only the early removal of pus tubes, infected cystic tumors and the like, but also after operations where the appendix re-

1. Rousski Vratch, Nos. 20, 21 and 22, 1902. Abst. in THE JOURNAL A. M. A., Sept. 20, p. 732.
2. Bull. Méd., Paris, xv, 769.
3. St. Louis Med. and Surgical Journal, 1902, 82, 28.
4. Amer. Jour. Med. Sciences, Philadelphia, 1902.
5. Amer. Medicine, Dec. 6, 1902. Abst. in THE JOURNAL A. M. A., Dec. 20, p. 1617.
6. Amer. Gyn., August, 1902.

mains, its careful protection from any possible denuded peritoneal surfaces or involved areas.

11. Barring the greater liability of infection from neighboring viscera and the somewhat greater difficulty of differential diagnosis in the female, we have more available means of exploration, a better prognosis and greater facilities for operative and non-operative relief.

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DISCUSSION.

DR. E. REYNOLDS, Boston—We are all familiar with the class of cases in which the symptoms are not in keeping with the results of the physical examination; cases in which neurasthenia, malnutrition and marked digestive troubles are associated with occasional moderate or even severe pain in the right side, and yet we can not feel anything distinctly. Our course of action must be guided by the degree of the symptoms presented. If the patient's health is ruined by her condition, her case justifies an operation. If she is not suffering seriously from the symptoms we are not justified in operating unless we can make a definite diagnosis. I have had a number of cases lately in which the conjunction of symptoms pointed very strongly to appendicitis. I have come to associate the conjunction of even moderate tenderness on the right side, with right-sided pain, intestinal flatus and usually some mucus in the dejections, especially if associated with a history of nausea, vomiting in pregnancy or menstrual sick headache, with appendicitis. The presence of a majority of these symptoms is very strongly suggestive of chronic conditions of the appendix. Beyond question we are all removing the appendix to-day more frequently than we did two years ago. And I am inclined to think that we shall remove it still more frequently in the future. I believe that we should remove every abnormal appendix, but I think we are going too far when we advocate its invariable removal. I think it is worth remembering that we have all been doing many abdominal sections for many years without removing the appendix, and I should be curious to know how many operators there are in this room who have had many cases where they have operated and have not looked at the appendix in which that appendix ever gave trouble afterward. The last case I operated on showed a condition of the appendix that I have seen a number of times. In these cases the ligament which originally forms the mesentery of the appendix, the iliolumbar ligament, which in the primitive state also forms the mesentery of the colon, and the mesoovarium, persisted in its fetal state, and the symptoms were apparently referable to the persistence of this ligament. In the last case it caused a kinking of the appendix and connected it with the right kidney. The more we study the anatomic conditions of these chronic appendiceal cases the more we shall get at the bottom of them, their causes and their treatment.

DR. EDWIN RICKETTS, Cincinnati—To say that we can in all of these cases differentiate, is, I think, putting it rather strong. I agree with the previous speaker that to say that in all instances in which the abdomen is opened the appendix should be removed is a step too far in advance. In many cases in which the right ovary or tube is attached to the appendix we have a train of symptoms that is rather peculiar, but in many of these cases I am certain that we can make a diagnosis. It is an attack of inflammation that is peculiar to the appendix.

DR. WM. W. WATHEN, Louisville, Ky.—We are discussing the relation of appendicitis to disease of the pelvic structures, particularly of the ovaries and tubes. I can not concur in an opinion that connects the occurrence of appendicitis with an ovary and tube where the anatomic and physiologic conditions are normal. Hence when we have appendicitis arising in the pelvis we must have some pathologic condition that causes it, although the pathologic condition may have been so modified that it is observed with difficulty. Recently I removed the appendix in about eight cases of disease of the pelvic structures, and in each the diseased condition was caused by pus in the right side of the pelvis. In none was there any pus in the appendix, only a parenchymatous thickening and adhesions. In every laparotomy I feel that it is the duty of the operator to examine the appendix, and if it is at all diseased it should be removed, especially in pelvic inflammations, because appendices which are diseased as the result of a pelvic inflammation are long appendices that will again fall down, come in contact with the pelvic organs, and possibly become more inflamed. I do not believe, however, that a healthy appendix of usual length should be removed.

DR. PAUL MICHINARD, New Orleans— The question of appendicitis is one that interests me as a gynecologist, not from the operative phase, but from that of diagnosis between salpingitis and appendicitis. Any man with a certain amount of diagnostic skill can diagnose acute salpingitis from acute appendicitis, and any good gynecologist can do an appendectomy as well as a salpingectomy. But the question is, shall we tell the patient that he has a chronic right-sided salpingitis or a recurrent appendicitis? In the former case she is practically in no danger, but in the latter case there may be an acute gangrenous appendicitis that may at any time cause death. In chronic appendicitis the most intense pain is produced by pressure on the abdominal wall; in chronic salpingitis, in the right fornix, pressing with the finger in the vagina. Tumefaction in the first, by pressure on the abdominal wall; in the second, by firm pressure in the right vaginal fornix. We are more interested in the diagnosis than in the operation which we can all perform.

DR. WM. P. MANTON, Detroit, Mich.—I wish to endorse Dr. Newman's paper fully. In many cases it is difficult to make a differential diagnosis. Often where there is no active salpingitis or appendicitis there may be an adherent appendix. You will invariably find a thickening on the right side and without difficulty can trace the adhesions up from the right fossa to the appendix, and also get a certain amount of impaired mobility of the cecum. No man, unless he has had a very large experience in abdominal surgery, is capable of saying from the macroscopic appearance of the appendix whether it is healthy or not. The idea that a normal-looking appendix should be left because attached only by very fine cobweb adhesions to the broad ligament or glued to the intestine, is absurd. For some years I have had nearly all appendices which I have removed examined microscopically, and in the vast majority of cases appendices which from their macroscopic appearance might be said to be normal, were found diseased when sectioned and examined. The mucous coat, and even the muscular coat, may be ulcerated through, and sometimes in imminent danger of rupture, when to naked-eye view the appendix appears perfectly normal. I believe that Dr. Newman is right when he advocates the removal of every appendix that is in any way connected with disease of the right appendages. Microscopic examinations will show that often when the organ appears to be normal it is in reality very much diseased.

DR. CHAS. S. BACON, Chicago—I failed to hear any reference to the relation existing between appendicitis and obstetric complications. I believe that the obstetric side can not be omitted. The most important feature of the paper was the question of diagnosis. In appendicitis the question of the existence of pregnancy in its early stages is extremely important. After the pregnancy is established then the diagnosis between a complication of appendicitis and other forms of peritoneal inflammations is important. Pain is not so good a diagnostic point in the pregnant as in the non-pregnant state.

DR. J. H. CARSTENS, Detroit, Mich.—The whole question seems to be revolving around the diagnosis. If we have an acute case of salpingitis, with uterus fixed and an exudate in the pelvis, there is no question about its being a pelvic cellulitis. We do not have that with appendicitis. When there is pain over the McBurney point in acute inflammation of the appendix then we have a uterus which is freely movable. Dr. Newman's paper referred to chronic cases in which there is no exudate in the pelvis; hence there can be no acute salpingitis. There is a certain amount of pain over the McBurney point, which there never is in salpingitis. When I get cases in which I do not know whether the tube or the appendix or both are diseased, but in which there is pain over the

McBurney point and a sudden squirming of the patient when she is touched, I insist on operating. Ordinarily with young people who go along without any particular trouble, and who suddenly develop a little pain in the right side, recurring every day or week, one can be almost positive that it is a case of appendicitis which requires an operation.

DR. C. O. THIENHAUS, Milwaukee, Wis.—I have pointed out in a published paper that in many cases of chronic catarrhal appendicitis one may find, clinically, dysmenorrhea and not so seldom shortening of the right broad ligament, inflammation of the right tube, with or without hydrosalpinx and inflammation of the ovary. The essential question in such cases is: Was the tube the primary focus of the infection and the appendix involved secondarily, or vice versa? I believe that in many cases in young girls which present the above symptoms and in which gonorrhea can be positively excluded the appendix was the primary seat of the malformation present and the female genital organs involved secondarily. It has been stated in literature that one very often finds paraovarian cysts, pelvic inflammatory cysts and ovarian cysts connected with chronic appendicitis. What is the reason? I believe that in general the appendix is a *locus minoris resistentiæ*, and that in many cases of inflammatory condition of the female genital organs on the right side the appendix becomes involved. I found an ovarian cyst in a woman three months pregnant who was lying in bed for two months with a diagnosis of appendicitis. On examining her I found a tumor in the pouch of Douglas of the size of a man's fist and made the diagnosis of ovarian cyst, explaining the clinical symptoms by twisting of the pedicle. At the operation I found a cyst with a long pedicle, which was not twisted nor showed signs of any previous twisting, but the appendix about 14 cm. long was adherent to the cyst and thrown around it at the point of connection of the cyst with the pedicle. There was prompt recovery after removal of the appendix and cyst and pregnancy was uninterrupted. In cases connected with abscesses in the pouch of Douglas one may encounter the greatest difficulties in regard to diagnosis.

DR. J. WESLEY BOVÉE, Washington, D. C.—We are getting a little too radical. I am sorry that Dr. Carstens brings in McBurney's point. I have found the cecum low down in the pelvis many times and I can not make the McBurney point chase the cecum all over the peritoneal cavity. Therefore, to rely on pain over the McBurney point as a symptom of appendicitis is an error. Another error is the practice of removing the appendix of every case in which we operate on the adnexa. I have repeatedly operated on cases such as ruptured tubal pregnancy, dermoid cysts, etc., in which I did not look at the appendix as I did not dare to take the time. In other cases I take enough time to look at the appendix, not to remove it. I remove it whenever the condition of the patient will permit, but there are cases in which it can not safely be done.

DR. G. BETTON MASSEY, Philadelphia—Since no mention is made as to whether the operation could have been avoided by medical treatment, we must conclude that the operation was necessary. I had a case recently that leads me to think that here, too, there is a chance for conservatism in the treatment of conditions where circumscribed colitis may be mistaken for appendicitis or salpingitis. The case was that of a young girl, very much run down in health, and very nervous. No abnormal physical conditions were found. The treatment that seemed to do a great deal of good was betanaphtholate of bismuth, though operation had been advised. I call your attention to the wisdom of treating the colon when you suspect that you have appendicitis, which is often an extension of a colonic trouble. Treat the colon, the original site of true appendicitis. It has been the result of my observation that many people with colonic irritation are passing their lives in ignorance of the fact, and it is probable that appendicitis is frequently a sequel of this condition.

DR. J. L. MCCOLLUM, Chicago—I believe that there are cases in which no one can make a diagnosis. In cases in which we can demonstrate that there is no change in the tube and ovary we can exclude pelvic trouble; and in cases in which there is no decided tenderness over McBurney's point, no rigidity of the recti, we can exclude appendiceal trouble. I saw a young girl in consultation, and did not concur in a diagnosis of appendicitis made by one surgeon. The history apparently excluded any pelvic trouble. We operated and found that the appendix was normal but the tube diseased. We can not make a positive diagnosis in these cases because the findings are so contradictory. I am heartily in accord with the dictum to remove every appendix whenever possible. If I have the patient's consent, and if her condition will permit, I remove the appendix, even when I am doing a herniotomy. I have had no occasion to regret my radical procedures in this field, and the patients have always been satisfied with the result.

DR. F. F. LAWRENCE, Columbus, Ohio—We are apt to forget that Nature is sometimes a very good physician. In cases of chronic peritonitis, tubercular or otherwise, in which it is necessary to open the abdomen, the separation of the adhesions is followed not only by relief of the symptoms within the peritoneal cavity, but if for any reason it is necessary to reopen the abdomen after some months, we find no sign of the former disease. That this also holds good in cases where we find peritoneal adhesions without pathologic conditions of the appendix, where we are operating for a right-sided tubal trouble, is undoubtedly true. I do not believe that the author intended to advocate the removal of normal appendices. No abdominal surgeon would presume to know more about what is good for man or woman than the Almighty who made them. We are assuming too much by removing such an organ which is doing no harm. Any diseased condition should be removed; normal structures, whatsoever they may be, should be left alone.

DR. D. H. CRAIG, Boston—Four cases that have recently come under my notice are examples of the existence of the fold of the broad ligament constituting the lumbo-ovarian or appendiculo-ovarian ligament of Clado, and in three of the cases the presence of this structure was not suspected but was found during operations for other pelvic lesions. In the last case the operation was done with the distinct understanding that a definite diagnosis had not been made. Previous treatment for both ovarian conditions and appendicitis was of no avail. She was not an invalid, nor was she well. The right broad ligament was found to be divided into three folds: one carried the round ligament, one the tube, and the third the ovary. This latter extended nearly to the tip of the appendix, constituting the mesoappendix. Through this division of the ligament came the ovarian artery from some point high up behind the cecum. I did not feel justified in tracing it any farther. On the left side there was a mere rudimentary broad ligament low down, the round ligament, tube and ovary being entirely absent. The organs present on the right side were entirely normal. The question throughout the case had been one of diagnosis between appendicitis and salpingitis. The appendix and ligament were removed. The ovary was apparently normal and was not removed. The lower segments of the broad ligaments were thus perfectly relaxed and were not disturbed. The patient made a good recovery and is entirely free from pain.

DR. H. P. NEWMAN—My purpose in introducing this subject was to suggest to both surgeon and gynecologist more alertness in the handling of these cases. Appendicitis should not be regarded as a simple affection that may be neglected with impunity. I have seen fatal complications arise from its presence even forty years after the primary attack. If there is any pathology in the appendix, and if the patient's life would not be endangered by its removal, it should not be left in the abdomen after laparotomy. As I have stated, the pathology is not always discernible by the naked eye, and the macroscopic examination is not always conclusive, so that whenever the abdomen is opened a prophylactic appendectomy should be considered and its performance determined by the best judgment of the surgeon. Some one has asked in regard to the prevalence of appendicitis with infected ovarian cysts and twisted pedicle. I referred to this in my paper. It is not uncommon, and I insisted on the removal of infected cysts as I would the removal of infected tubes or any other infection of the pelvis.

THE DEVELOPMENT OF THE FUSION CENTER IN THE TREATMENT OF STRABISMUS.*

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MILWAUKEE, WIS.

The etiology of strabismus is a still much-mooted question, and each ophthalmic surgeon follows out a routine of treatment with his cases according to the theory which seems to him most rational. As the title indicates, defective development of the fusion center will be considered the essential etiologic factor in this paper, according to Worth's[1] theory.

De Schweinitz's[2] new book gives the following factors as causative:

1. Disturbance of the relation between accommodation and convergence by errors of refraction.
2. Disparity in the length, thickness and tension of opposing muscles.
3. Inequality in the vision of the two eyes or amblyopia of one eye, which removes the natural stimulus of diplopia to exact convergence.
4. Disturbances of innervation and defective development of the fusion faculty.

Savage[3] says, under the etiology of comitant esotropia: "The conditions causing the error exist from birth, and only one out of several natural causes undergoes any change at any time after birth. . . . That in the greater number of cases . . . over-stimulation of the third conjugate innervation center causes an actual deviation . . . a conversion of esophoria into an esotropia, and throws the immediate blame for crossing of the eyes on the ciliary muscles."

The following etiologic factors are also given in the order of their importance:

1. Esophoria.
2. Hyperopia.
3. Hyperphoria of one eye and cataphoria in the other.
4. A lower state of visual acuity in one eye than the other, either from congenital abnormality in the perceptive, transmitting, or receptive part of the apparatus or some opacity or irregularity of the refractive media, either congenital or the result of disease or anisometropia.
5. "The whole macula in one eye may be connected with one side of the brain, while the whole macula in the other eye may be connected with the other side of the brain."

And though Savage[3] remarks, "there is no test in the investigation of comitant esotropia so important as the fusion test," and lays so much stress on the training of the fusion faculty in its treatment and has determined the nine conjugate innervation centers of the extrinsic eye muscles, he does not come out and avow a fusion center.

"Vision[4] is the mental interpretation of an impulse conducted from the rods and cones of the retina through the optic nerve and tracts to the visual areas of the brain." Man being a binocular animal must, in his normal condition, receive two sets of sensations from any luminous object; these are transmitted to the visual areas of the brain; from there they must, in the normal state, be transmitted to a co-ordinating center, or, as I shall call it, the fusion center, where they are blended; here binocular vision becomes binocular single vision. In order to allow of a blending or a fusing of these two sets of sensations, identically corresponding portions of the retinæ of the two eyes must be influenced by the pencil of light; this requires binocular fixation.

To perform the normal function of seeing, then, we must have:

1. A normal perceptive apparatus, i. e., emmetropic eyes.
2. Perfectly balanced extrinsic muscles.
3. Normal transmitting apparatus.
4. Perfect receptive apparatus, and, finally,
5. A fully developed fusion center.

From this center must emanate all the efferent impulses to the various subsidiary centers for all changes in the accommodation, direction of the visual axes and positions of the head and body that are required to bring corresponding retinal points into focus; hence, when the development of this center, or its function after development, is in any way disturbed or interfered with we have as a result those deviations of the visual axes known as heterophoria and heterotropia, or strabismus; not due to abnormalities in the anatomic relations of the orbit and muscles and paralyses of the same.

Worth[1] has determined that the fusion center is fully developed in the normal individual by the sixth year.

The fusion center may be entirely wanting; it may be in a rudimentary state, due to non-use from various external causes or by being rudely interfered with in its developmental period by fright or some prolonged or severe illness.

Absence of the fusion center is evidenced in those not rare cases of true alternating strabismus, which, even after all methods of treatment have been tried, can never obtain binocular single vision, and some not even binocular vision. Though the visual axes may appear perfectly parallel, the vision in each eye normal or made so with correction, they can never fuse, but rapidly fix, first with one eye then the other.

The following conditions interfere with the development of the fusion center:

1. Refractive errors.
2. Inequality in the sight of the two eyes.
3. Faulty perceptive, transmitting or receptive apparatus.
4. Abnormal relations between orbit and muscles, their over-or-under-development and paralysis of one or more of them.

Refractive errors interfere with the development of the fusion faculty by the unequal relation between accommodation and convergence; the function of each separately has some latitude of movement, but there is a limit beyond which neither can operate alone; "thus a hyperope of 6 D. would require an accommodation of 6 D. to neutralize it, the visual lines being parallel, the point of convergence is then nearer than the point accommodated for."[2] The images carried to the brain from both eyes being blurred, that of one is disregarded by the fusion center as a clearer image is thus obtained, exactly "as[5] we disregard the image formed by its fellow when we use the microscope with both eyes open," and the eye thus left without a point of fixation turns in, that being its direction in attempting to keep up the relationship between accommodation and convergence;

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. J. A. Lippincott, Frank Allport and John E. Weeks.

1. Worth: The Etiology and Treatment of Convergent Squint. The Lancet, May 11, 1901.
2. De Schweinitz: Diseases of the Eye, fourth edition.
3. Savage: Ophthalmic Myology.
4. Suter, Posey-Wright: Diseases of the Eye, Nose, Throat and Ear.
5. Black, Nelson M.: A Plea for the Early Treatment of Squint, THE JOURNAL A. M. A., May 24, 1902.

this is the beginning esophoria which eventuates into continuous esotropia. In myopia, in contrast to this, when deviation does occur, it is usually divergent strabismus.

Because the sensation sent by the eye to the fusion center can not compete in distinctness with that sent by the fellow eye, in anisometropia (even if slight), congenital amblyopia, opacities of the media or faulty conductive and receptive apparatus of one eye, it is disregarded, the center develops without its influence and the eye, receiving no return impulse, has no point to fix, and, consequently, the visual axes deviate; if, however, the center has been developed before these factors appear, habit usually holds the visual axes straight afterward.

Wood[6] says of amblyopia ex anopsia: "Whatever be the origin of the defect in sight, it is probably the main cause of the heterophoria." In my opinion, amblyopia ex anopsia is not a cause of the non-development of the fusion center, but, on the contrary, a result largely of its non-development. Because of the disregard of the sensation sent by the eye to the fusion center, it does not fix, is not used; and becomes amblyopic, the amblyopia generally does not correspond to any ophthalmoscopic defect, although the visual field is frequently contracted, the error of refraction of the amblyopic eye is often much the same as that of the fixing eye, so that the ametropia can not account for the lowered visual acuity."

Anatomic abnormalities of the orbit and extrinsic muscles or paralysis of one or more of them, of course, prevent the development of the fusion center because of the impossibility of binocular fixation, but nature may try to help out the fusion center in bringing about binocular single vision, even here, by specializing other cells to form a new fovea.

Those cases of strabismus which are due to the fusion center being interfered with during the developmental stage, usually give a history of a deviation following some severe illness, convulsions, or during an attack of whooping cough, or after a severe fright; it is usually periodical at first and finally becomes constant. The eyes are usually found emmetropic or nearly so, the separate muscular movements are perfect, fixation with either eye; but only the lowest grade of binocular vision exists, or perhaps none at all. The illness or fright has interfered with the development of the fusion center for the time being and a deviation, periodic at first, appears and may remain so, not being in evidence unless the child is ill, tired or excited; or it may become constant, each visual area remaining intact and a comitant, alternating strabismus results. These cases usually respond readily to orthoptic treatment.

Development of the fusion center by orthoptic exercise is by no means a new feature in the treatment of strabismus, but many of the various forms of stereoscopes, used for this purpose, have been faulty in that binocular vision could not be obtained. Sufficient time and patience in many cases were lacking; and an amblyopic eye was not considered worth working with when a tenotomy, advancement, or combination of the two, would produce, at least, a cosmetic result at once. Landolt[7] says: "The principle of any stereoscope useful for the treatment of strabismus is that the instrument employed places the eyes in the conditions which are most favorable to the fusion of their retinal images."

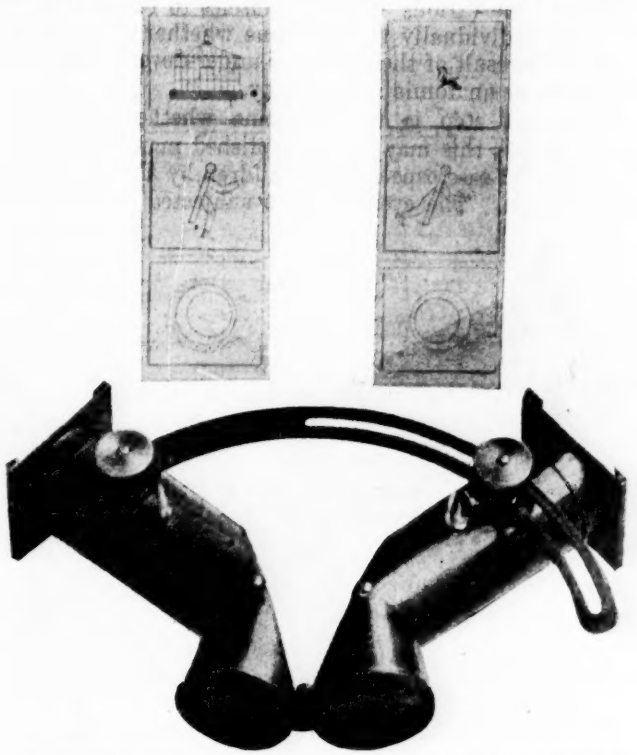
6. Wood, C. A., Posey-Wright: Diseases of the Eye, Nose, Throat and Ear.

7. Landolt: Norris-Oliver Text-Book.

Worth's new stereoscope, or amblyoscope as he calls it, has overcome the first stumbling block.

"This instrument consists of two halves joined by a hinge, each half is made up of a very short tube joined to a longer one at an angle of 120 degrees; a mirror being placed at the cord subtending the arc of this angle; an object glass is placed at the free end of the longer tube, at the free end of the shorter tube is a lens, the focal length of which equals the distance of the reflected image of the object glass at the end of the longer tube. The two halves of the instrument can be brought together to suit a convergence of the visual axes up to 60 degrees, or separated to suit a divergence of as much as 30 degrees."

The writer has added to Worth's model an additional movement in a vertical direction, in order to obtain



Amblyoscope and Series of Slides.—The bird and cage being used to establish binocular vision only. The second set requiring true fusion to complete the picture. The last when fused gives an impression of the perspective.

fusion when the lateral deviation is complicated by a vertical deviation.

With this instrument, the fusion center can be exercised and developed during the existence of the squint. The fact that parents are bringing their children for treatment for strabismus at an earlier age and demanding that something be tried before an operation is resorted to, makes us take more time and use more patience; and, finally, the fact that the vision of a large majority of amblyopic eyes can be improved by proper treatment has replaced immediate and indiscriminate operating and given this department of surgery its proper place, that of producing parallelism of the visual axes after the fusion center has been sufficiently restored, to maintain binocular single vision by the use of the stereoscope and no noticeable diminution in the degree of deviation from a continuance of the treatment.

The existing conditions in a case of strabismus naturally determine the method of procedure in attempting to develop the fusion center. The first thing, however, is to determine the visual acuity of each eye. This may

be accomplished in children under 3 or 4 years of age after Worth's[1] method by means of five marbles or ivory balls, varying in diameter from one-half to one and one-half inches; if at five or six meters' distance the youngster with one eye occluded can go directly to the smallest ball thrown on the floor by the operator, it is safe to say his visual acuity is practically normal; at least, the vision of the two eyes can be compared in this manner and the question of an amblyopic eye determined. The amount of deviation of the strabismus is then determined in order to see as the treatment progresses if there is any diminution in its degree; this is accomplished with the perimeter or some of the various strabometers, or it is quickly demonstrated by the writer's[8] modification of Worth's apparatus, which is an easy and different application of the perimeter method. The ability of the various extrinsic muscles to rotate the eye is tested individually to determine whether the strabismus is the result of their over- or under-development, innervation or anatomic abnormality.

The next step is to determine whether binocular vision exists; this may be accomplished many ways, but with greatest ease, especially in children, by the use of the amblyoscope. The eyes are then subjected to complete cycloplegia; the errors of refraction, if any, determined and correcting glasses ordered.

Worth-Black amblyoscope, having vertical movement.

When an amblyopic eye exists, it is actively brought into use to determine whether its vision can be improved; this is done by instilling a mydriatic into the better member, if that is sufficient to allow the vision of the poorer eye to compete with it; if not, the better eye is occluded by a blinder or a bandage and the amblyopic eye is depended on for vision entirely. That a large majority of so-called amblyopic eyes can be improved in vision by requiring the possessor to depend entirely on them for seeing, is certainly proven by reported cases;[9] [10] in those cases in which no improvement is noted, if a visual field can be obtained, defects not visible with the ophthalmoscope may be determined, which will lead one to classify the eye as congenitally amblyopic; improvement in the vision of such an eye is almost beyond hope, still we should not give up trying until sufficient time has elapsed, with the better eye occluded, as to absolutely prove that there has been no gain in the vision of the amblyopic eye.

The development and exercise of the fusion center with the amblyoscope is commenced immediately; for this purpose three sets of object slides are used; the first are two dissimilar objects, as a bird and a cage, a mouse and a trap, etc.; these require only binocular vision. A set requiring binocular single vision or fusion has part of the subject on each slide, and must be fused to make a complete picture; the third set consists of stereoscopic pictures, which, when combined, give an impression of perspective or depth perception.

The amblyoscope is used in the following manner:

"The child with his correction on is held on the surgeon's knees and the amblyoscope roughly adapted to his degree of deviation; it is then held before the child's eyes and an electric lamp is put in the axis of each tube about four feet away. By a simple mechanical arrangement each lamp is easily brought nearer to, or put farther away from, the tube which it illuminates. A slide showing a cage, for instance, is put in the tube before the child's fixing eye, and a bird in that before the squinting eye, and the child is told what to look for. At first he sees only the cage. The lamp before the fixing eye is then taken farther away and that before the squinting eye is brought nearer until the child sees the bird. By this time he has lost sight of the cage. The intensities of the illuminations are then adjusted until the child sees both the bird and the cage. The child is then allowed to grasp the instrument and, assisted by the hands of the surgeon, is taught to vary the angle of the instrument so as to make the bird go in and out of the cage. Many other similar pairs of slides are shown. The average child of 3½ or 4 years of age takes a very keen interest in the game, which he imagines has been devised merely for his amusement. Slides which require a true blending of the images are then shown. After a time it is often found that the angle of the instrument may be altered to a very considerable extent, either in convergence or divergence, while the eyes follow the objects and maintain fusion of the pictures. One often gets a powerful "desire" for binocular vision in these young subjects with surprising facility. The next step is to equalize the intensities of the lights. This may usually be done at this stage without a return of suppression. In many cases one is able to deviate the two halves of the amblyoscope more and more at each visit until parallelism of the visual axes is obtained."

As the visual axes are brought nearer parallelism, the use of an ordinary stereoscope with the Kroll's charts, Würdemann's modification of these or those recently published by Dr. Hale of Chicago, will serve as the most practical method of exercising the fusion faculty, as they can be used with an inexpensive stereoscope for daily exercise by the patient at home.

Some cases, however, will undoubtedly require operation to bring about complete parallelism of the visual axes; but, if the desire for fusion has been established—and Worth[1] asserts it can only be acquired in early

8. Black, Nelson M.: A Simple and Effective Method of Determining the Degree of Deviation in Squint, Ophthal. Record, November, 1902.

9. Friedenwald: Improvement of Vision in Amblyopia from Non-use, Ophthal. Record, January, 1903.

10. Lewis: The Conservation of Binocular Single Vision, Annals Ophthalmology, January, 1903: Medicine, Nov., 1902.

childhood—it is only necessary to bring the visual axes approximately straight, because a desire for fusion, which has been acquired by the use of the amblyoscope, will then place and hold the eyes in such position that identically corresponding portions of the two retinæ are affected.

Until the etiology of strabismus is settled and universally accepted, the methods of treatment will vary with the etiologic theory accepted by the individual; however, since commencing with the above outlined treatment in February of last year, we have not operated on a case of strabismus in a child under 10 years of age, and there are now 17 cases under treatment, and all making progress, with five cases completely cured and maintaining binocular single vision without any discomfort. The objections to the method are the time required to effect the result and the possibility of having to resort to operative measures in the end; this with

Worth Black deviometer for determining degree of deviation in squint.

the assurance, however, of binocular single vision being maintained and no relapse of the condition; the trouble of impressing the parents with the importance of coming at the time indicated for consultation and the expense of the treatment, which amounts to as much or more than an operation, and in case of an amblyopic eye, of keeping the better eye occluded for sufficient length of time to obtain a result, are the main obstacles to overcome; these objections, however, I consider of minor importance when compared with the truly remarkable results obtained.

Hydrogen Dioxid in Diagnosis of Ulcer of Stomach.—A Russian confrère is cited by a French exchange as having been able to differentiate ulcer from cancer by the intense pains that followed ingestion of a tablespoonful of a 3 per cent. solution of hydrogen dioxid. This extreme sensitiveness of the gastric mucosa to the effects of a weak solution of hydrogen dioxid seems to be an invariable accompaniment of gastric ulcer, as treatment based on this assumption always resulted in a cure in his experience. He found also that the same solution had a marked beneficial effect in cases of gastritis, arresting vomiting and disinfecting the digestive tract. He thinks it might prove particularly useful in infantile gastro-intestinal affections. The results of treatment by this means of habitual constipation from atony of the intestines have also been very encouraging.

STEREOSCOPIC EXERCISES.

WITH A SERIES OF PICTURES—TO BE USED IN AMBLYOPIA AND SQUINT.*

ALBERT B. HALE, M.D.

CHICAGO.

The stereoscope has had a history not unlike many other instruments of our day. At first developed to illustrate certain scientific phenomena, it rested as an optical apparatus in the physicist's laboratory till the enterprising spirit of commerce combined its principles with the rapidly popularized art of photography and made of the product a scientific toy. Any one of mature years can remember the time when the center ornament of the parlor table was the stereoscope and its pile of pictures—from the Alps to the acrobat—and much instruction, as well as entertainment, was afforded by the fascinating contrivance.

I dare say that many a time some one person would be puzzled to find that the stereoscope gave him no better view of the pictures than did his naked eyes, but the explanation for this—the failure of the apparatus to develop the perception of depth, which is its function—was unknown to him or his friends, nor investigated by the unscientific; it was probably attributed to some idiosyncrasy, and no more thought given to it. Gradually the popularity of the instrument waned, and to-day in many an attic or lumber-room may be found a forgotten stereoscope, with its pictures, of which the modern child knows neither the use nor meaning.

Hitherto the stereoscope had served to illustrate only a phenomenon in physical optics, and the human eye which interprets it, i. e., what we call physiologic optics, was scarcely taken into account. But when ophthalmologists began to study the problems of the human eye (vision, binocular vision, fusion, depth perception) it was not long before there was a demand for some means to test the visual sense of the two eyes working together, so that the perceptive capability of each eye could be estimated both by itself and by association with its fellow. The principle of fusion was then investigated—a cerebral function not an optical condition—and the stereoscope was seized on as the instrument most adapted for the purpose.

Dubois-Raymond, a physiologist, early saw the advantages of the stereoscope, but Javal, and later Landolt, both ophthalmologists, were the first to popularize its scientific and practical application.

I shall not explain the principles of the instrument more than to say that it is necessary to separate—isolate completely—the image of one eye from that of the other, so that it is impossible for the observer to confuse what he sees with one eye with what he sees with the other, or whether he sees with the right or the left eye. By preventing this confusion, we at once notice a distinction that is not enough emphasized by physiologists in teaching the functions of the eye. The distinction is this: One eye may see while the other does not (I do not mean amblyopia, for this is a condition to be considered later and apart), monocular vision. The eyes may each perceive a portion of the outer world and combine these portions into an image, binocular vision. The eyes may each see these portions with a true estimation, not only of their relation to each other, but also of their special relation to the observer, and thereby fuse them into a

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. J. A. Lippincott, Frank Allport and John E. Weeks.

single image with the perception of depth, binocular single vision.

Now, with a complicated apparatus and with elaborately devised charts and diagrams, it is possible to study retinal and cerebral function with pleasing exactness, and to make records of results, but the therapeutic use of the stereoscope is often hampered by such complications, because it requires the technical hand to manage them and the skilled ophthalmologist to interpret them, and because the patient is apt to become so confused at the details of the test that it is found impossible to make interesting exercises of them or to perform them at home without this skilful guidance. Exercises to be placed before the eyes of a patient arouse his curiosity; they must be such that a child may pursue them of himself and may be easily taught just what he is expected to accomplish.

European practitioners have published series of stereoscopic views which meet the best requirements of science and art, and I do not criticise them when considered as laboratory, or even office, apparatus. The French series of Hegg (Berne), used by Landolt; the German series of Dahlfeld, Kroll (Perlia), with its American reprint by Würdemann, Pflugk, the Spanish series of Presas, are all excellent in their way, but from my own experience I am convinced that they find but

Figures on a sample card of stereoscopic exercises. In use there should be 60 cm. between the centers of the two images.

limited use when given to the patient for exercises at home. Beside this, they are all (with the exception of the American reprint) published in a foreign tongue, and all have pictures strange to the American eye, or so uneasy of interpretation that the patient is often more embarrassed to give a name to what he sees than to tell simply what the picture presents to him.

Such being the case, I felt that I might benefit my own patients by publishing a series of American pictures, simplifying them as much as possible for domestic use, reserving for office tests the more complicated problems in the higher developed series; but I can not be satisfied till I have submitted them to the judgment of my confrères, who, I hope, will aid me with their criticisms to make them a more suitable and usable set for the treatment of some amblyopias and squints. I am not so enthusiastic as to believe that squint can of itself be corrected or in many cases even improved by stereoscopic exercises alone; the classical treatment, by correction of the refractive error, and when deemed necessary by operation, can not be displaced by this means; but, on the other hand, I must express my satisfaction with the results of stereoscopic exercises; and my experience runs counter to that of Gould, who miscredits the efficacy of the stereoscope in amblyopias or squints.

Stereoscopic exercises must illustrate five stages:

1. Simple tests to measure what the one eye or both eyes together can do. This I have embodied in Series A (1, 2, 3, etc.), which can be extended as far as may be desired.

2. Simple tests of the ability of each eye to see its own field and to retain this impression while the other eye also sees. This is Series B, which grows somewhat more difficult from number to number.

3. Tests in which each eye sees what it at first takes to be the same picture, but in which the half for each eye lacks some detail present in the half for the other eye; these halves are probably fused, or the patient thinks they are, but a failure to fuse can be detected by the omission from the patient's description of one or more details. This is Series C.

4. Tests in which not only is there an instinctive stimulus to fusion, but also the added factor of depth, for the figures are so arranged that each eye obtains a picture presented to it at an angle differing from the angle of the other eye, and the completed picture seen with both eyes acting together should be that of a solid body, i. e., there should be a perception of depth in addition to fusion; stereoscopy, the perfected act of binocular single vision. This is Series D.

5. Tests by means of pictures of what we habitually see in the outer world, in which I have introduced two ordinary photographs from life and a simple catch card for reading, in which each eye is deprived of some letters visible to the other eye, so that both eyes must be used together and simultaneously before the story can be fluently read. This is Series E.

These charts may be placed in the hands of any child or adult, to be used at home and frequently, with regular reports to the ophthalmologist of what progress has been made. The pictures are scientific, clear, readily understood, handy and cheap. Any simple stereoscope of the shops may be used. The whole value of stereoscopic exercise depends on repetition, as it is only by this continuously repeated stimulation that the habit of fusion may be formed and perpetuated.

103 State Street.

DISCUSSION

ON PAPERS OF DRS. BLACK AND HALE.

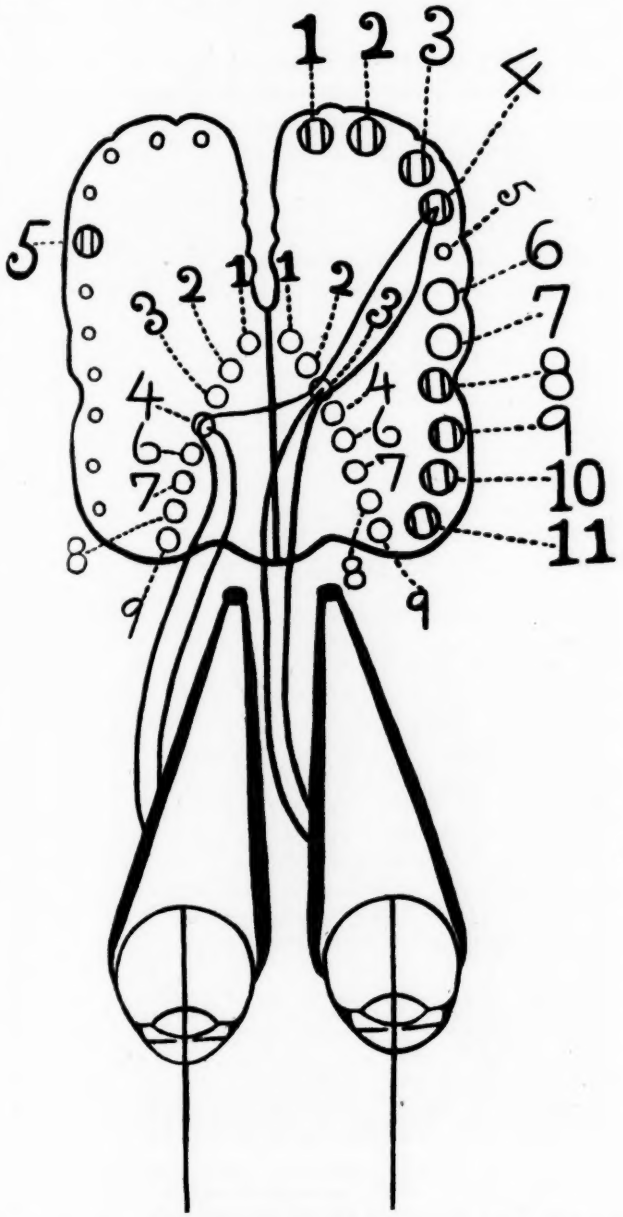
DR. C. C. SAVAGE, Nashville, Tenn.—I would call your attention to this chart, which is one made to illustrate my own paper, but which serves well to discuss this one. Dr. Black quoted me correctly when he said that I did not avow the existence of a fusion center. I deny the existence of a fusion center in the sense in which he uses the term, and I believe Dr. Black will agree with me before I am through.

I have represented here all the centers of the brain that have to do with the movements of the eye. Two faculties preside over these. One of the faculties is volition and the other is the fusion faculty. Nature has two ways of dealing with diplopia: One is the mental fusion of the two images and the other is mental suppression of one image. Both are mental faculties. I want to say that instead of having one fusion center, we have twelve at the base of the brain and two in the cortex.

I have these centers marked off here so as to indicate which are under the control of the fusion and which the volitional faculty. The ones crossed with parallel lines are volitional; the others, not so crossed, are under the control of the fusion faculty. The volitional centers are all in the cortex, while those under the control of the fusion faculty are situated mainly in the base, there being only two of these in the cortex. The basal centers are all fusion centers. Every one of them is presided over by the fusion faculty of the mind. There are just a few of these centers concerned in the condition that Dr. Black has spoken of—esotropia. The third basal center on either side has nothing to do so far as esotropia

is concerned. The fourth center has a good deal to do with the condition before esotropia occurs.

When, in esophoria, the fusion faculty gives up its control over the right and left fourth basal centers, at that moment internal squint occurs, but so long as it has full power over these centers there can be no esotropia. Whenever these centers at the base of the brain have been overworked, then the fusion power of the mind gives way and internal squint occurs. Referring to one of the causative agents mentioned in Dr. Black's paper, as leading up to internal squint, I would say that center 10 in the cortex controls the focusing muscles of the eyes. The convergent center is the one marked 3, and it is connected by means of nerve fibers with both the internal



recti muscles. When it sends out its impulses the resultant action is on the part of the interni only. Cortical center 10, which gives power to the two ciliary muscles, is so related to cortical center 3 that when one is in over-action the other must also be in a state of over-excitation. This explains to my mind why it is that hyperopia is one of the causes of internal squint. In hyperopia the images would be bad if the focusing muscles were not kept in a state of action. But, as sure as center 10 is excited, so is center 3 reflexly excited. Hence it is that when you have hyperopia there is pseudo-esophoria. There is always esophoria whenever there is hyperopia; it may not show itself as esophoria, but it is there. How is it, then, that in correcting the error of hyperopia we can cure squint in young children? Simply this: when the proper lenses have been given, center 10 becomes as quiet as can be so far as distant vision is concerned, and from this time on it has only to do the normal work required of emmetropic eyes. Now, whenever over-action on the part of center 10 is eliminated so is over-excitation of center 3 eliminated, and thus the pseudo-esophoria is cured. But, pseudo-esophoria is not the only cause of squint. The esophoria itself may not have been able to produce squint, but the pseudo-esophoria grafted on it gives the combined power necessary to bring about that condition. If you eliminate the pseudo-esophoria you bring the two externi muscles under control of the right and left fourth basal centers, and esotropia is no more.

I endorse all of the paper, except that wherein the author speaks of a fusion center. I say there is a fusion faculty and that it presides over twelve fusion centers at the base of the brain, and two fusion centers in the cortex.

Dr. Black's improvement of the Worth amblyoscope makes it an ideal instrument.

Dr. Casey A. Wood, Chicago—In my investigations of the subject I agree with Dr. Savage. Apart from the considerations presented by Spencer and others in the study of the psychology of the matter I think binocular single vision is a thing that every child learns for himself. He does not have it when he is born, but acquires it. It is an effort of the intellectual faculties. He has to reason out the matter. In the first months of infantile life he makes efforts of the nature of which he is probably dimly conscious. Use is made of the radiations from the calcarine fissure which extend to the neurons in the upper cerebrum. After awhile he acquires the faculty of fusion and binocular single vision by means of the basal centers is possible.

I think a matter of great importance is the use of the Worth instrument. I think it is by all odds the best instrument we have for the exercise of binocular fixation in children, and I am sure you will agree with me that the instrument devised by Dr. Black furnishes the best means we have for that end. I have used the original Worth instrument since it was first accessible. The thing of principal importance in the Black modification is the vertical displacement of the two tubes to allow of exercise in the presence of hypertropias and cyclotropias, which are not properly provided for in the original instrument.

Speaking of Dr. Hale's paper, I must confess that the great array of cards for the stereoscope demands more patience than I possess. I am reduced to practically three pictures, which the child can not fail to recognize, and these I have so far found sufficient for all the exercise required. He will, for example, always recognize the picture of a bird with one eye and a cage with the other, and this particular card I almost always use. Indeed, I do not believe children are esepcially amused with a great variety of cards; their interest may be sustained with the same old "bird and cage." Let me suggest that an assistant watch the child all the time; few young children can be trusted to use with profit and alone any instrument of this sort. The exercises should be carried out at least three times a week in the office and the improvement noted. At home it is desirable to have a good stereoscope that will enable the child to be exercised three or four times a day under the care of the nurse or mother. In my experience the best stereopticon card is a very simple one. I use two figures made like this (illustrating on board) a square and a sphere.

Finally, as Worth points out, the fusion faculty can not usually be developed in children over 6 years of age. We should, then, begin our lessons as early as possible. In most cases the evolutionary course pursued by the squinting child, as shown by the amblyoscope and stereoscope, is, first, simultaneous (double) vision; second, binocular vision; third, binocular-single, or stereoscopic vision. Even when the eyes appear straight the squinter may never pass the first stage of vision.

Dr. Edward Jackson, Denver—One measure that has not been mentioned is the use of the fusion tubes suggested by Priestley Smith. The tubes have each at the further end, away

from the eye, simply a dot and a line, and these being fused give two dots and one line. It is even possible to work on cyclophoria by simply twisting the tubes. I find that the child will keep this up as long as any exercise that I have ever tried; certainly longer than any of the pictures. The light can be regulated for the better eye by pasting a little piece of paper over the slit in the tube. They give the very best binocular exercise: to recognize something with both eyes at the same time and to get primary fusion.

DR. M. D. STEVENSON, Akron, Ohio—I have been using the Worth amblyoscope for two years, and find it of real service in the treatment of squint when used sufficiently early, properly and persistently. The instrument as modified by Dr. Black, if it can be made sufficiently firm, should be especially serviceable where hypertropia is also present.

I think the term fusion faculty is preferable to that of fusion center, and believe it to be the principal factor in the production of binocular vision, although I also believe it is presided over by another faculty, which I prefer to name the conscious faculty of vision, rather than the volitional center.

Usually the first thing in the treatment of these cases is to establish conscious vision if possible in each eye, that is, we try to teach the child to see with each eye at the same time, or, in other words, try to produce diplopia, e. g., the bird within the cage, and when we have succeeded in doing this we have progressed a long way toward a cure. This may be spoken of as the establishment of conscious vision in each eye—the training of the conscious faculty of vision—and until this can be accomplished in a case there can be no training of a fusion faculty or center, because there would be as yet nothing to fuse, their being but one recognized image. Two images must be seen—the conscious faculty of vision in each eye must be trained—before there can be any fusion. If the vision of one eye is unconscious, that is, if it has not risen into consciousness, there can be no tendency to combine the unconscious vision of that eye with the conscious vision of the other. Before fusion can take place the vision in both eyes must be conscious at the same time. Quite a large number of people do not have conscious vision in both eyes at the same time; in them it takes training to produce either diplopia or double combined (binocular) vision.

DR. NELSON M. BLACK, Milwaukee—A mistake was probably made in attempting to go into the etiology of strabismus in this paper, but it was thought necessary in order to have some reason for carrying out the line of treatment mentioned. However, the name "fusion faculty," given by Dr. Savage, is as acceptable as "fusion center"; whatever it may be called neither adds to nor detracts from the universal good results obtained in treating strabismus by this method. I thank Dr. Savage for the easy manner in which he has let me down.

DR. ALBERT B. HALE, Chicago—I want to call Dr. Savage's attention to the fact that the fusion faculty can often be controlled by the will so that they are not antagonistic or complementary, but one may at times be supportive of the other.

I did not mean these cards to be competitive with the Worth instrument. They are only a set of cards that the patient can take home for daily exercise, and that is what we want. I have had good results from simple stereoscopic pictures.

A DEVIATION FROM THE USUAL METHODS OF CLOSING ABDOMINAL WOUNDS, INCLUDING HERNIA.*

O. O. WITHERBEE, M.D.
Surgeon to Los Angeles County Hospital.
LOS ANGELES, CAL.

A troublesome experience with buried sutures has defeated the best efforts of many excellent surgeons in their endeavor to separately approximate the different layers in closing abdominal wounds.

* Demonstrated before the Southern California Medical Society, and read before the Los Angeles County Medical Society.

With a desire to overcome this difficulty, and yet to accomplish all that may be done with buried sutures, I began about two years ago the exclusive use of silkworm gut in closing, not alone abdominal wounds, but in suturing all incisions I have had occasion to make in doing a general line of surgery.

In closing an abdominal wound in the medium line it is my habit to first approximate the peritoneum with a silkworm gut introduced in the same manner as a subcuticular suture, and then to bring both ends through the integument near the extremities of the incision. This permits of its ready removal any time from the third to the sixth day, according to the pleasure of the operator.

The abdominal fascia is now brought into apposition by ordinary figure-of-eight sutures, except that the ends

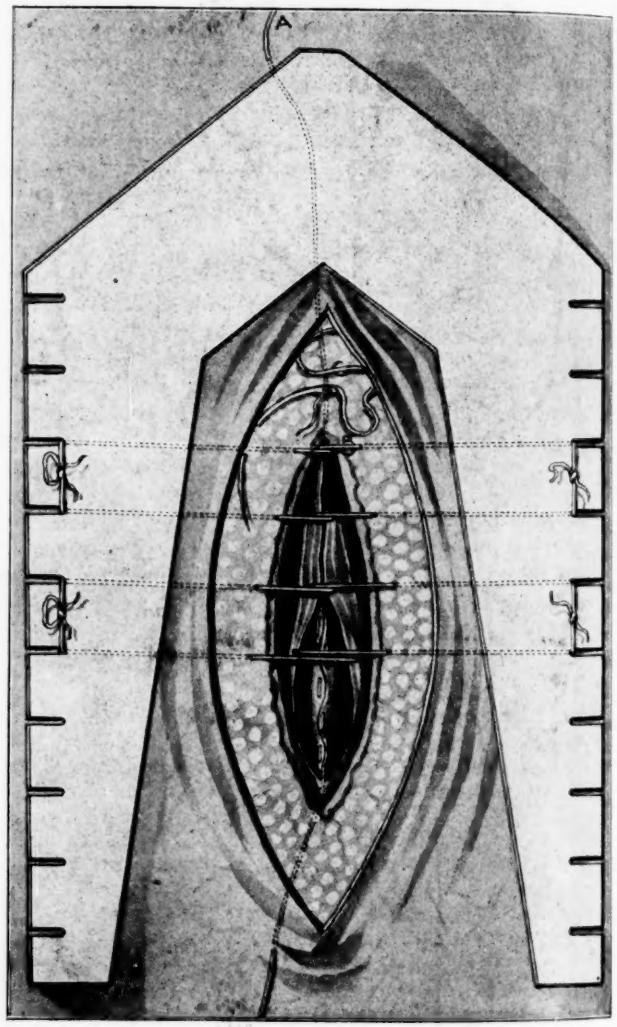


Fig. 1.—The U-shaped aluminum plate employed in closing abdominal wounds. A. The peritoneal suture, which should emerge near extremity of wound instead of above the plate. B. The figure-of-eight suture, which is supported by the plate. C. The subcuticular suture.

instead of being brought out near the margins of the wound, are carried by long curved Hagedorn needles through the adipose tissue to emerge on a line parallel with the abdominal incision and from one and one-half to two inches on either side of it.

These ends are passed through notches in the lateral bars of a U-shaped or rectangular framework, made from aluminum or hard rubber, the outer dimensions of which measure from three to four inches in width, and from four to six inches in length. The sutures are then

tied in pairs on each side respectively, with just sufficient tension to perfectly approximate the fascia. On one side the ends should be tied in a bowknot, that the tension may be altered if necessary.

The skin incision is next closed by a subcuticular suture, and when completed strips of sterile gauze are drawn beneath the plate and a moist bichlorid dressing placed over all. The same tactics are made use of in the treatment of hernia, except that the peritoneal suture is quilted back and forth through the neck of the sack, and its ends carried well above the internal ring, where they are brought through the tissues and secured to the upper part of the framework, said suture to be removed at the end of one week.

In approximating the conjoined tendon with Poupart's ligament, the tension should be exerted on a plane to correspond with the resistance to be overcome.

The above-named structures do not normally lie in apposition, but are often widely separated, hence the difficulty in effecting and maintaining their approximation until union is complete. The ordinary figure-of-eight sutures brought out near the margins of the wound will utterly fail in a large percentage of cases, especially

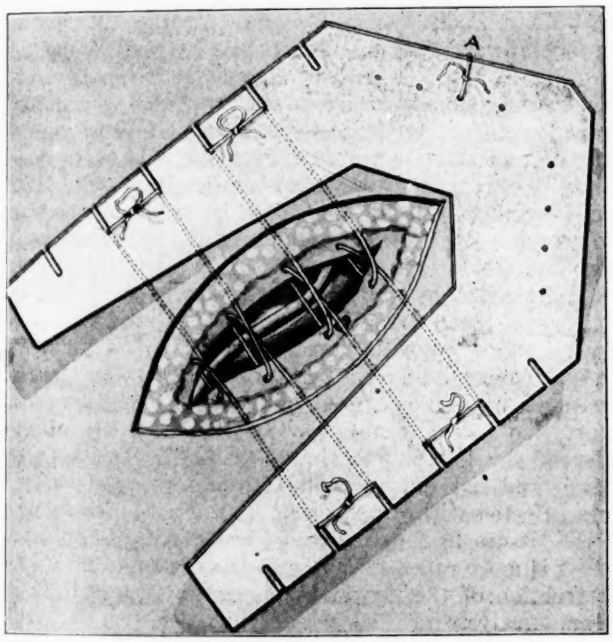


Fig. 2.—Represents the U-shaped aluminum plate employed in approximating the conjoined tendon with Poupart's ligament. A. The peritoneal suture, which fixes neck of sac above internal ring.

if the skin alone is relied on to withstand the resistance.

By bringing the sutures out at a remote distance from the incision and securing them to the framework above the skin, we accomplish all that can be done with a buried suture, while the tissues are subjected to much less abuse than when a knot is employed at point of approximation, thereby creating a fixed, unyielding band, which materially interferes with the circulation, and does certainly lessen the strength of union between those ligaments. Another advantage of this method in the treatment of hernia lies particularly in the fact that the tension of the sutures can be altered at any time the swelling or congestion of the parts may demand it.

In abdominal work the comfort secured to the patient by relieving the skin of that pressure necessary to maintain approximation of the deeper structures is frequently a factor of no small importance. Little does the surgeon think when placing his sutures that their position may have much to do with the welfare, and even the recovery, of the patient. Since endeavoring to eliminate that pressure occasioned by the closing sutures, I have noticed that my patients exhibit less evidence of shock, and that it is not an uncommon thing for one to sleep almost the entire night following an abdominal section.

Most of the creatures subjected to this torment are women, who, it is said, were born to suffer, and therefore uncomplainingly endure for long hours a slow torture which they fancy belongs to the operation, and so must be borne.

It is true they do not speak especially of the stitches, for the reason that they can not differentiate varieties of pain coming from the same region, but appreciate it all as a sum total, and bear it, as there is nothing else to do.

In abdominal cases the sutures may be removed from the eighth to the tenth day, but in hernia cases, to insure

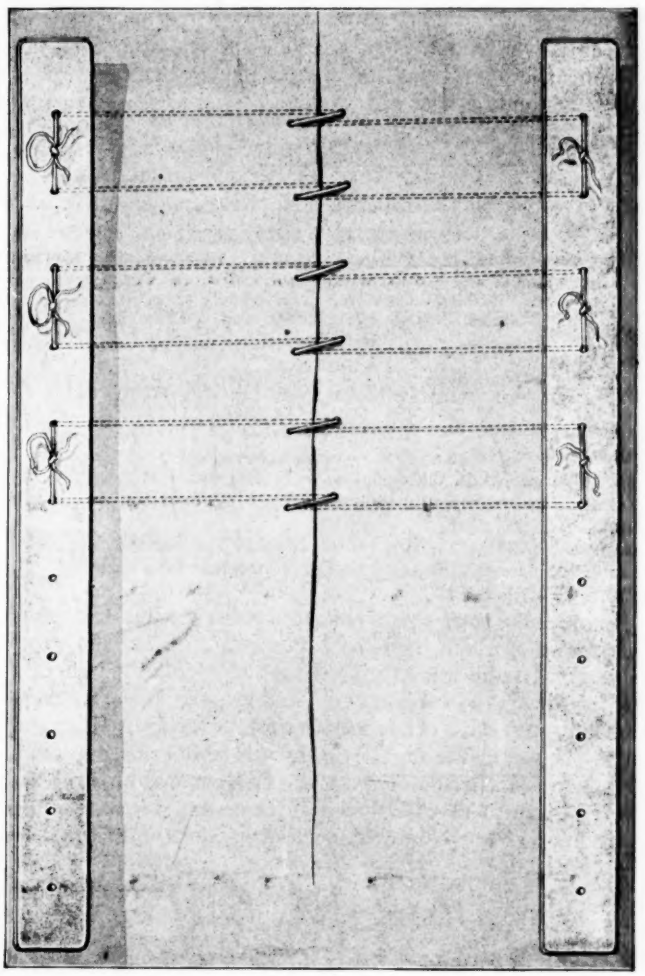


Fig. 3.—Represents the use of separate plates for increasing the pressure area in plastic work.

certainty of union, the sutures should not be removed before the twelfth or fourteenth day.

In plastic work when it becomes necessary to draw the skin over denuded areas of considerable size, the same manner of closing may be employed without fear of sloughing as a result of pressure from the sutures. Here we simply invert the small loop of the figure-eight, in which case it acts as an interrupted coaptation stitch, minus the knot, and may or may not appear above the surface of the skin. In order that it may also serve as a retention suture at point of emergence beneath the plate only lateral perforated bars should in this instance be employed.

Again, when closing short incisions where there is a scant amount of adipose tissue the plates may occupy a position near the margins of the incision, in which case the transverse support may be omitted.

In abdominal work before making the initial incision, the lateral boundaries of the framework should be outlined on the integument by a delicate scratch made with the point of a scalpel.

In closing, the sutures emerge at this line (which has now become visible from congestion) and when tied on both sides produce sufficient fullness of the intervening integument to prevent tension at the line of incision. No adhesive strips are necessary for abdominal support, and the binder may be applied only moderately snug.

The cosmetic effect is all that could be desired, as the cicatrix remaining after removal of the subcuticular suture is seldom more than a delicate white line.

The stitch holes beneath the plates close up and disappear.

The time consumed in adjusting the plates does not prolong the operation, and with a little practice is quite as convenient as the old way.

610 Frost Building.

SCARLET FEVER.*

WILLIAM L. BAUM, M.D.

Professor of Skin and Venereal Diseases, Post-Graduate Medical School of Chicago; Attending Physician on Contagious and Infectious Diseases, Cook County Hospital; Dermatologist, the Chicago and German Hospitals.

CHICAGO.

During the years 1896 to 1903 the following cases of scarlet fever were under my observation at the Cook County Hospital:

Number of cases, 628; males, 307; females, 321; deaths, 44.

Complications.—Suppurative otitis, 11; nephritis, 47; pneumonia, 19; arthritis, 2.

Mixed Infections.—Number of cases, 142; deaths, 17; diphtheria, 96; measles, 29; diphtheria and measles, 1; varicella, 13; parotitis, 3.

It will be seen from the above table that the mortality was a little over 7.07 per cent. of all the cases treated. In the mixed infections the mortality was 11.9 per cent. It will be noted that among the complications, suppurative otitis media occurred eleven times, or in 1.7+ per cent. of all cases. In about 35 per cent. of the cases there was pain in the ear. The mild or catarrhal form of otitis media, according to Bader and Guinon,[1] is very common, occurring in 33 per cent. of the cases.

Holt[2] has found it in 75 per cent. of those cases accompanied with severe throat symptoms.

Nephritis, in which there were present albumin, casts and blood cells, occurred in 47 cases, or in 7.6+ per. cent. of all cases. Albumin was present in over 37 per cent. of the cases during the early stages of the disease.

In three cases there was present at the beginning, or on the second day of the eruption, a severe septic nephritis, with much albumin and many casts. These cases were all fatal.

Acute lobar pneumonia was present in 19 cases, mostly involving the upper lobes. Henoch[3] states: "The mucous membrane of the bronchi and the parenchyma of the lungs are excited by inflammatory influences far more frequently than we usually suppose. Not only catarrh, but more or less extensive bronchopneumonia occurs in the first and second weeks of the disease. These conditions are frequently overlooked, however, because a whole series of synchronous severe typhoidal symptoms disguise them and divert the attention of the physician." We found bronchitis and bronchopneumonia in nearly all severe cases.

Severe arthritis was present in two cases; in one of these cases, a girl 10 years of age, the swelling of both elbow and wrist joints appeared on the tenth day of the disease. It was ushered in by a chill, rise of temperature to 104 degrees and great tenderness in the joints. The symptoms increased in severity up to the twenty-eighth day of the disease; the joints became soft and fluctuating, the aspirated fluid was filled with streptococci and the child finally died of a general sepsis. There was also present nephritis.

In 21 other cases there was slight swelling of the joints, but unaccompanied by any other severe symptoms.

Among the mixed infections, diphtheria was the most common. Cultures are made from the throats of all patients admitted to the contagious and infectious ward of the Cook County Hospital. In the 628 cases of scarlet fever, the Klebs-Löffler bacillus was found 96 times, or in 15.2 per cent. of all cases. It is well, however, to state that in many cases it appeared as a purely secondary infection during the period of early convalescence and after exposure. Jürgensen[4] answers some points in regard to diphtheria complicating scarlet fever as follows: (1) Is any one able, by simply inspecting the genuine diphtheritic membrane, to differentiate it from the membranes that occur in a scarlatina that is not complicated by diphtheria? In many cases, yes. In diphtheria these are firm, compact membranes of a grayish yellow color, that can be separated in their entirety. In scarlatina the membranes are softer, looser, separable only in portions and of a more brownish color. To this I can not agree, for in many of the cases of the latter type the Klebs-Löffler bacillus was found, and not only this, but from these cases others were infected with diphtheria. (2) A deep destruction of the tissues in the vicinity of the parts primarily involved is more rare in diphtheria than in scarlatina. (3) Obstruction of the larynx by a membrane formation is a comparatively rare occurrence in scarlatina, and still more rare is a croupous exudate on the mucous membranes, extending deep down into the air passages. (4) I do not wish to lay too much stress on the fact that in the involvement of the larynx by a diphtheritic inflammation from the pharynx accompanying scarlatina, the clinical symptoms have a characteristic type. (5) The paralysis following genuine diphtheria is absent in the pharyngeal diphtheritis accompanying scarlatina. (6) As to the time required by the course of the disease, Henoch declares, in regard to the condition that he calls the necrotic inflammation typical of scarlatina, that it appears, as a rule, on the third or fourth day after the beginning of the disease; this holds good only for the cases that are moderately severe. In severe cases it may be present even in the course of the first twenty-four hours.

Corlett[5] states that among contagious and eruptive fevers none presents so many varied types as scarlet fever, ranging, as it does, from the mildest form, scar-

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* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Cutaneous Medicine and Surgery, and approved for publication by the Executive Committee: Drs. H. W. Stelwagon, W. L. Baum and J. A. Fordyce.

1. Moizard Traite des mal de l'Enfance, Paris, 1897.
2. Diseases of Infancy and Childhood, New York, 1897.
3. Vorlesungen über Kinderkrankheiten, p. 642, 3rd edition.
4. Nothnagel's Cyclopedia of Practical Medicine, volume on Diphtheria, Scarlet Fever and Measles, p. 505, 1902.
5. A Treatise on the Acute Infectious Exanthemata, 190[illegible]

latina simplex, or benigna, to the most malignant type, scarlatina maligna, called by the French foudroyante. Between these two extremes we find an almost endless variation from the normal, one shading gradually into the other; so that any sharp differentiation into groups is quite impossible. It is this constant variation in type which renders the differential diagnosis of scarlet fever from other disease processes so difficult.

In differential diagnosis, drug eruptions, as caused by belladonna, quinin, copaiba, chloral, opium and the coal-tar derivatives, must be taken into consideration, for not only are the conditions for which they are prescribed accompanied by fever, but the drug eruptions frequently start on the face and locations characteristic also of the scarlet fever eruption. Toxic erythemata occur in the course of septic infections, which are frequently mistaken for scarlet fever eruptions. In both of the above conditions the enlargements of the glands in scarlet fever, as shown by Schamberg, are of diagnostic value. Cases of rubella, or German measles, are frequently mistaken for mild scarlet fever, and it is with great difficulty that the diagnosis is arrived at. In the scarlet fever the rash is made up of minute, brightly injected puncta, slightly elevated and closely studded together, forming a uniform or finely mottled surface, while the rash in rubella is always measly, and never becomes confluent.[5]

Other cases which had been sent into the hospital as scarlet fever proved to be erysipelas, cerebrospinal meningitis, measles, tonsillitis with erythema, influenza and one case of septic typhoid fever.

It is strange that where so many children who had recently undergone surgical operations were exposed to the infection that only in two instances did scarlet fever develop among them. Hoffa[6] believed that scarlatina can originate from wounds, and quotes Von Leube, who infected himself during an autopsy on the cadaver of a case that had died of an unusually severe attack of scarlet fever.

ETIOLOGY.

Since the report of Klein,[7] in which he was convinced that the Marylebone epidemic of scarlet fever in London could be traced to the milk supply, and found the streptococcus taken from the vesicles on the udders of cows, which he believed were suffering from true bovine scarlatina, there have been many others, notably Fiessinger,[8] who believe that they have discovered the true etiologic factor. Class[9] describes a diplococcus. His organism is a non-capsulated diplococcus appearing occasionally, though rarely, in streptococcic form. It is polymorphous in character, attaining not uncommonly, under certain conditions, an unusual size. It is said to be constantly present in the pharynx in the scarlatinal angina. Baginsky and Sommerfeld[10] have described a streptodiplococcus very similar to the one described by Class. We have endeavored to follow out this work, especially on the lines laid down by Class, but have found so many similar organisms in the throats of patients, suffering from the infectious diseases, that the results are inconclusive.

Weaver[11] made many cultures from the throats of scarlet fever patients and reaches the following conclusions:

1. The bacteria obtained in cultures from the skin, epidermic scabs, and the surface of the tonsil, are the same as those found in the same locations in health, and no one of them is constantly present, except the streptococcus in the throat.

2. Because of the numerous cocci which grow in such cultures and which appear in groups of two and four, or bunches of the same, under the microscope, it is impossible to identify them except by a complete study in pure cultures.

3. Cultures made by inexperienced persons, or by those who do not fully appreciate the importance of avoiding the tongue, are especially apt to contain large diplococci or sarcinæ.

4. The streptococcus is present on the tonsil of scarlatinal patients in enormous numbers in almost all patients.

Hektoen,[12] in a series of bacteriologic examinations of the blood, during life, in scarlet fever, with special reference to streptococcemia, comes to the following conclusions:

1. That streptococci may be found in the blood of cases of scarlet fever that run a short, mild and uncomplicated clinical course.

2. That streptococci occur with relatively greater frequency in the more severe and protracted cases of scarlet fever in which there also may develop local complications and clinical signs of general infection, such as joint inflammation, but even in the grave cases of this kind spontaneous recovery may take place, and, finally,

3. That streptococcemia may not be demonstrable in fatal cases of scarlet fever.

The theory that scarlet fever is a streptococcus disease does not seem to receive any direct support from this work.

After a study of the literature bearing on the subject of the bacteriology of scarlet fever and an endeavor to verify the works of the investigators, one is forced to the conclusion that it has not yet been shown that any one of these organisms is the true etiologic factor in scarlet fever.

DISCUSSION.

Dr. Jay F. Schamberg, Philadelphia—I regret that Dr. Baum was not able to read that part of his paper on the clinical description of scarlet fever. The differential diagnoses between scarlatina and certain scarlatiniform erythemata is frequently involved in great difficulty. In some cases it is utterly impossible to be sure whether one is dealing with a scarlatinoid rash or the true eruption of scarlet fever. The exanthem of scarlet fever may be regarded as a toxic erythema or dermatitis; there are other substances besides the scarlatinal poison which are capable of producing a similar eruption. Quinin, belladonna, antipyrin, opium, mercury and other drugs may produce rashes which may closely simulate the scarlet fever exanthem. Erythemata occurring in certain infectious diseases and septic states may be quite indistinguishable from that observed in scarlet fever.

Differentiation would be easy if all cases of scarlatina were frank and well pronounced. It is a facile matter to recognize as scarlet fever an attack characterized by sudden rise of temperature to 104 F., vomiting, inflamed throat, a diffuse punctated rash, strawberry tongue, general glandular enlargement, with the subsequent development of otitis media, nephritis, rheumatism or albuminuria. It is an easy matter to set down on paper a differentiation between typical examples of scarlet fever and scarlatiniform erythema, but such information often fails one at the bedside.

There are mild cases of scarlet fever in which the fever is insignificant, and the throat symptoms no more pronounced.

6. Spezielle Diagnose der Innern Krankheiten, Bd. II, Leipzig, 1893.
7. Report of Local Government Board of London, 1885.
8. La Semaine Medicale, July, 1893.
9. New York Medical Record, September, 1899, and The Journal A. M. A., vol. xxxiv, No. 34, 1900.
10. Berliner Klin. Woch., No. 22, 1900.
11. Transactions of the Chicago Pathological Society, February, 1903.
12. The Journal A. M. A., March 14, 1903.

Indeed, in atypical cases the disease may exist without fever, without angina, or even without a rash.

The history of the case is often of importance in clearing up the diagnosis. If the attack can be shown to have resulted from an antecedent case, or if it give rise to a subsequent infection, the diagnosis is at once simplified. The appearance of the tongue carries considerable diagnostic weight—not so much the coated tongue with red papillæ peeping through, but the red, papillated tongue which is seen about the third day of the disease—the so-called strawberry tongue. It is uncommon to find such an appearance of the tongue in scarlatiniform erythema.

Too much importance has been attached to the occurrence of desquamation. Scaling after a scarlatinoid rash has been regarded as confirmatory evidence of the scarlatinal nature of the disease. Dermatologists recognize the fact that desquamation will follow any scarlatiniform erythema which has been characterized by sufficient inflammatory change in the skin. Indeed, these erythemata often scale much more profusely than the rash of scarlet fever. More important than the mere existence of scarlatinal scaling is its persistence. It is not rare to see a comparatively mild attack of scarlet fever in which the desquamation may persist for five, six or seven weeks. A point of diagnostic value in the desquamation of scarlet fever is a tendency of the epidermis to split just beneath the free border of the nail (*Subungual cleavage*), the epidermis then peeling off down the finger and exposing the pinkish, tender skin beneath. This usually occurs from about the tenth to the fourteenth day.

Scarlatiniform erythema may usually be distinguished by a lesser grade of constitutional disturbance, the eruption being disproportionately pronounced as compared with the fever and prostration. The throat may be reddened, but the tonsils are not swollen and covered with exudate. The red papillated tongue is usually absent. Enlargement of the maxillary gland is not present. Furthermore, there is often a history of recurrent attacks of these erythemata. Many reported cases of repeated attacks of scarlet fever have doubtless been instances of erythema scarlatiniforme recurrens.

There is no acute infectious disease which is more often attended with diagnostic difficulty than scarlet fever. Poorly-marked cases are frequently overlooked, and other counterfeiting rashes are often diagnosed as scarlet fever.

DR. A. W. BRAYTON, Indianapolis—Did Dr. Baum say anything about the scarlet fever they had along the lake shore 35 or 40 miles north of Chicago during the last winter in Evanston and Lake Forest? I had some patients from Lake Forest who said the place was quarantined. They stated that there were no deaths and that there was a good deal of difference of opinion as to whether it was scarlet fever. The disease in Indianapolis has been of a mild type for the last ten years. Very few deaths have occurred, not more, in proportion, than from measles.

DR. HENRY G. ANTHONY, Chicago—In answer to Dr. Brayton I wish to state that I had an opportunity of seeing some of these cases, and there is no question that they were typical scarlet fever, and they were not all mild.

DR. LUDWIG WEISS, New York—I would ask Dr. Baum whether in those cases which proved to be clinically light there has been noticed a rash in and below the inguinal folds, below Poupart's ligament, and having a burnished aspect. I have seen this symptom several times, and my attention was drawn to it, especially in a case where after an operation for adenoids the child developed a rash which looked like scarlet fever, but where a diagnosis could not be made at once. Of course it might have been caused by traumatism, as eruptions sometimes occur after operations, but it developed later that it was true scarlet fever. If those who see so many cases would notice this symptom, it would help a great deal toward making an early diagnosis.

DR. J. B. KESSLER, Iowa City, Iowa—I am sorry the author did not go into the clinical aspect more particularly, because it is important; at times it is difficult to make a diagnosis of scarlet fever. I know a medical man who graduated and located in Dubuque, Iowa, years ago, who showed an eruption to some of his colleagues. They were in doubt as to the trouble, but agreed among themselves that as he was a young man they would shut him up anyway, so they told him he had scarlet fever. I have been acquainted with him for seven years and have seen him in his operating room with this eruption, which shows a mild grade of erythema scarlatiniform. The throat will be slightly reddened, and there will be slight malaise for three or four days before this comes out and while the eruption remains. This is followed by mild desquamation. This has been repeated for twelve years.

In our city scarlet fever is pretty well "vaccinated" out. I do not remember of a death in the city for twenty years, but strange as it may seem, in the adjoining towns I have seen severe cases. Last summer I attended a severe case of scarlet fever in a little girl where the glands of the neck became involved and suppurated.

In regard to the spreading of scarlet fever, I think that is largely due to neglect in not having the cases properly inspected before quarantine has been removed. I remember some years ago there was a question of diagnosis in a case of scarlet fever. The mother said that her son had had scarlet fever, and our health officer was in doubt about the case. I told him I thought he had scarlet fever, but as the health officer had let him out I would like to have him drop in occasionally so that I could watch the desquamation. I watched the desquamation for thirty days, and at the expiration of that period, to get rid of it, he sandpapered the soles of his feet. This was indicative to me that there is a chance to spread scarlet fever beyond the ordinary quarantine of thirty days.

DR. WILLIAM L. BAUM, Chicago—I regret that it was not possible to present this paper in full, and I thank Dr. Schamberg for calling attention to the clinical side of the case. Experience demonstrates that the diagnosis is often made with considerable difficulty. It has occurred in the hospital that the typical symptoms seemed to be absent, and patients have been transferred on account of the early disappearance of symptoms.

Dr. Brayton's question in regard to the Evanston epidemic was answered by Dr. Anthony. A number of severe cases coming from that district were transferred to our service, but I do not remember that there was a single death. However, I am glad the gentleman called attention to the mortality. It is rather interesting that in these hospital cases, which are largely drawn from the other wards of the hospital, the children's ward and from districts where you would expect illy-nourished children, the mortality is less than 7.7 per cent. Included in these mortality statistics are those brought to the hospital in a moribund condition, and who died within six hours of their admission.

Dr. Weiss calls attention to an eruption in the inguinal folds below Poupart's ligament. This I have not seen. It is a symptom to which I am glad to have my attention called, as I have not found it in any of our cases. We see many cases of scarlatiniform erythemas, and I believe most of the surgical scarlet fever is of this type. It is an interesting fact that in the children's surgical ward during a period of nine years, where at times as many as thirty or forty are exposed, only two cases of scarlet fever have developed.

Regarding the period of isolation, we isolate a patient at least forty days whenever possible and find that that period is sometimes not long enough. I am convinced that the statement made by many clinicians that the incubation period is not infectious is a mistake. We have had a number of cases where the exposure could only have occurred in the pre-eruptive stage.

Under Water Five Minutes.—To settle a dispute, George Kistler, swimming instructor at the University of Pennsylvania, recently remained under water five minutes and five seconds. It is stated that an examination by a physician following the feat showed no departure from the normal except some acceleration of the heart's action.—*Medical News*

Special Article.

THE PURIFICATION OF WATER SUPPLIES BY SLOW SAND FILTRATION.

(Continued from page 853.)

II.

WATER FILTRATION IN THE UNITED STATES.

The first sand filter constructed in the United States was the one built in 1872 under the direction of Mr. J. P. Kirkwood at Poughkeepsie, N. Y. A similar filter was installed by the same engineer at Hudson, N. Y., in 1874. Both these plants are still in operation. Although a beginning in water purification in this country was made at this early date, a more decisive step was taken by the construction of a sand filter at Lawrence, Mass., in 1893. The establishment of this filter may be said to mark the opening of the modern era in water purification in America. One of the leading American authorities on water supply has said:

> The Lawrence filter was in a large sense the beginning of water purification in America. This is particularly true when the matter is considered from a hygienic standpoint. A few filter plants had been built in America before the Lawrence filter, but these earlier plants had been directed largely or principally toward improving the physical character of the water. At Lawrence, for the first time, a filter was constructed with the deliberate purpose of reducing the death rate. The success that was achieved in accomplishing this result attracted the attention of the whole country and was of the greatest service in directing attention and energy to a most important subject, which up to that time had not received the attention which it deserved.

Another distinguished engineer has said:

> It is difficult to estimate readily how great has been the benefit which this filter has produced outside of the city of Lawrence. It has proved a stimulus and an example for many later developments in this field, and it has served as a basis of reference for engineers and sanitarians, not only in this country, but also in Europe. No matter how many filters may be built in years to come which are larger in capacity or more efficient or more economical in operation, it is very doubtful if any will succeed in displacing the Lawrence filter from the classical position which it now securely holds as marking the beginning of a new epoch, and, in fact, the first epoch of important practical accomplishments in this country in water purification.

A. THE LAWRENCE FILTER.

The city of Lawrence is situated in the northeastern part of the state of Massachusetts, near the New Hampshire boundary line. According to the U. S. census of 1900, its population was 62,559. The city lies on the Merrimac river, a stream which affords water power for various manufacturing interests, and from which since 1876 the public water supply has been derived. The present population on the watershed of the Merrimac above Lawrence is estimated as about 480,000, nearly 318,000 of which is urban population and therefore constitutes an important source of pollution. It was calculated that in 1900 the proportion of sewage flowing in the stream past Lawrence amounted to one gallon in every 200 at periods of average flow, and one gallon in every forty in the driest periods. The most dangerous element of pollution is the crude sewage discharged from the city of Lowell, eight miles above Lawrence. Like Lawrence, the city of Lowell has until recent years obtained its water supply from the Merrimac river and has in consequence suffered severely from typhoid fever, and the fact has been noted on several occasions that an increase of typhoid fever in Lowell has been followed in due course by an increase in the disease at Lawrence. Prior to the introduction of a pure water supply the typhoid fever death rate in both Lowell and Lawrence had for years been excessive, and averaged as high as from three to four times the typhoid fever rate in the state at large. It was primarily to remedy this serious condition that the construction of the Lawrence filter was undertaken in the fall of 1892 at the instigation of Mr. Mills, an eminent engineer and public-spirited citizen of Lawrence, and pushed to completion by September 20 of the following year.

The filter is located a short distance above the city of Lawrence on the north bank of the Merrimac river. Its total available filtering surface is about two and one-third acres. Until recently the filter bed has been maintained as a single unit, and, as will be seen, the lack of subdivision of the filtering area has greatly embarrassed the general operation of the plant.

The quality of the Merrimac river water does not present any special difficulties. The water does not usually contain a large amount of suspended matter, and the silt carried at times of flood is relatively coarse and is of a kind that settles out rapidly. The number of bacteria in the river water is not as high as in many other polluted river waters in the United States, ranging, as a rule, about 5,000 to 10,000.

During the ten years that the Lawrence filter has been in operation, a number of instructive incidents have occurred in connection with it which have emphasized certain of the fundamental tenets of sand filtration and have developed new points for future warning and guidance. At the time the filter was originally built it was intended that it should be operated intermittently, it being at that time supposed by Mr. Mills that purification would be more effective if the air were admitted to the sand at frequent intervals, as in fact is known to be the case in sand filtration of sewage. Certain exigencies of operation, however, due primarily to the amount of water demanded by the city, soon led to the abandonment of the system of intermittent operation and the maintenance of practically continuous filtration. Entirely favorable results have been secured by the continuous method, and the superior yield of water when the filter is operated continuously renders improbable a return to the original method.

Many of the most harassing circumstances in the operation of the Lawrence filter have been due to the lack of a cover. During the winter months the proper scraping of the filter surface has been greatly hampered by the frequently recurring necessity for removing a layer of snow and ice. The diminution in the yield of the filter, the marked interference with the bacterial efficiency and the exorbitant expense of dealing properly with the frozen surface are factors that have seriously impaired the efficiency of operation. The cost of removing the ice has sometimes amounted in a single winter to over $3,000, or more than one-third of the total cost of maintenance. Those in charge of the Lawrence plant have often urged on the city authorities the economy of covering the filter, but for reasons easily understood by those conversant with American municipal conditions, an annual outlay for labor is more attractive to the average city council than an expenditure for interest charges.

The original cost of the Lawrence filter was surprisingly low, amounting to only about $66,000, but the enforced economy practiced in certain directions at the outset has not been justified by several occurrences in the history of the filter. Perhaps the most notable in-

stance of this sort is the trouble that has been occasioned by the lack of a watertight bottom to the filter. The absence of this protection has at times allowed ground water to enter, carrying with it a certain amount of iron in solution. The presence of iron is known to favor the growth of a microscopic fungus, *Crenothrix* by name, an organism which by its accumulation in pipes and underdrains, has given rise to much trouble in the waterworks of Berlin, Rotterdam and other places. At Lawrence the underdrains of the filter became gradually clogged with a heavy filamentous growth of *Crenothrix,* and finally the passage of water was impeded to such an extent that it became necessary to reconstruct the drainage system. The processes of repair inevitably led to considerable disturbance of the filtering surface, and was promptly followed by a decrease in the bacterial efficiency of the filter, and a little later by an increased number of cases of and deaths from typhoid fever. Many other similar experiences in connection with the operation of European filter works have shown that a very slight disturbance in the operation of the filter may affect profoundly the health of the community supplied with the water. The municipal parsimony at Lawrence which failed to provide watertight filter basins must be held directly responsible for the loss of human life.[3]

Mention has already been made of the great difficulty experienced in cleaning the Lawrence filter, due to the construction of the filter plant as a single bed instead of in sections. The latter arrangement would have greatly facilitated operation and lessened the cost of maintenance by making it possible to clean properly one section of the filter while the supply was being kept up by the remainder. A belated subdivision of the filtering area was carried out in 1901, when two transverse division walls were constructed dividing the filter bed into three sections of about equal area.

BACTERIAL EFFICIENCY.

From the outset the effluent of the Lawrence filter has been regularly examined with a view to determining the bacterial efficiency of operation. The following table shows the reduction in the number of bacteria attained by passing the river water through the filter.

TABLE 1.

AVERAGE NUMBER OF BACTERIA PER CUBIC CENTIMETER.

Year.	In Water Applied to Filter.	In Water Drawn at Tap at City Hall.
1894	10,800	110
1895	11,100	80
1896	7,600	85
1897	10,900	84
1898	4,400	66
1899	5,800	42
1900	8,970	49
1901	3,017	26

Examination of the detailed figures[4] brings to light the interesting fact that in the latter part of 1898 and the early part of 1899, when the already mentioned repairs of the underdrains were being undertaken, the number of bacteria in the tap water was from four to five times as great as during the rest of the year. This confirms the opinion already expressed concerning the connection between the disturbance of the filter and the unusual number of cases of typhoid fever that appeared in the city early in 1899.

A very interesting feature in the methods of water examination employed at Lawrence since the latter part of 1898 has been the application of the test for the presence of *B. coli communis.* The presence of organisms of this class, as is well known, is a more delicate and satisfactory indication of the existence of sewage pollution than the ordinary numerical determination of all colonies developing on a gelatin plate, and unquestionably affords a more exact criterion of the quality of the water. The management of the Lawrence filter seems to have been the first to apply this test to filter effluents. The method has been found so illuminating that it is doubtless destined to a wider extension as its value becomes more generally known. The disturbance in the working of the filter in the latter part of 1898 is betrayed in a very striking manner by the increase in number of colon bacilli appearing in the effluent water.

The final and decisive test of the efficacy of any system of filtration must always remain the condition of the typhoid fever death rate of the community supplied with the water. The following table exhibits the application of this test to the Lawrence filter.

TABLE 2.

REPORTED CASES OF TYPHOID FEVER AND THE DEATHS RESULTING THEREFROM IN LAWRENCE BEFORE AND AFTER THE INTRODUCTION OF A FILTERED WATER SUPPLY.

Year.	No. of Cases per 10,000 Pop'n.	No. of Deaths per 10,000 Pop'n.	Typhoid Fever Death Rate for State of Mass.
Six Years Prior to Construction.			
1887	33	11.7	4.5
1888	50	11.6	4.5
1889	51	12.8	4.1
1890	43	13.4	3.7
1891	45	11.9	3.6
1892	36	10.6	3.5
Average	43	12.0	4.0
Eight Years Following Construction.			
1894	18	4.8	3.1
1895	15	3.1	2.7
1896	8	1.9	2.8
1897	13	1.6	2.3
1898	15	1.4	2.5
1899	22	3.3	2.3
1900	21	3.2	2.2
1901	15	1.8	1.9
Average	16	2.6	2.5

Several complicating factors must prevent the drawing of any sweeping conclusions from the figures in this table. One of these is the continued use of canal water for drinking in several of the Lawrence mills, a practice that persists in spite of continued and emphatic warnings. A study of the cases of typhoid fever occurring in the city from year to year has shown that a considerable proportion of cases and deaths have appeared among persons known to have partaken of the polluted canal water. It is said that in 1894 twelve deaths out of the twenty-four recorded for that year were among the drinkers of canal water, and in 1895 nine out of sixteen. Deducting known infections from this source would give a much more favorable aspect to the work of the filter.

On the other hand, as tending to diminish the credit to be assigned to the filter for the lowering of the typhoid death rate, it has been pointed out that since the installation of the filter the city of Lowell, previously the main source of pollution of the Lawrence water supply, has introduced a pure ground water. As a result of this improved supply typhoid fever has diminished very greatly in Lowell. The improvement in the condition at Lowell indicates that, even had a filter not been introduced at Lawrence, a decline in the typhoid fever death rate would have occurred as a result of a decreased prevalence of this disease in Lowell.

For these reasons the benefits accruing from the introduction of the Lawrence filter do not stand forth as clearly as they might have done under some other conditions. In view, however, of the figures in Table 2,

3. See increase in typhoid fever in 1899, Table 2.
4. Thirtieth and Thirty-first Reports of State Board of Health of Massachusetts, 1898 and 1899.

there is no escape from the conclusion that a remarkable decline in the typhoid fever death rate occurred immediately after the construction of the filter and has persisted up to the present time.

Recapitulating some of the lessons gained from the experiences at Lawrence,[5] these are:

1. The importance of proper construction at the outset as obviating the necessity for repairs, and the consequent serious disturbance of the filtering process.
2. The desirability of subdividing the filtering area in a small or moderate-sized filter plant.
3. The necessity for covering the filters in cold climates.
4. The value of the test for the presence of *B. coli communis* in filter effluents.

(To be continued.)

Clinical Report.

A CASE OF CONGENITAL SACRAL TUMOR—SPINA BIFIDA.

E. VIKO, M.D.
SALT LAKE CITY.

Reading the report of a case in THE JOURNAL, July 25, 1903, by Dr. R. Henderson, leads me to relate a unique case in my experience:

July 4, 1898, I attended Mrs. C., aged 25, in her second confinement. Labor progressed rapidly and normally until the head and body down to about the navel protruded from the vulva, when there was a sudden check to the expulsion of the hips and lower extremities. On pulling gently the hips appeared to be firmly held by some obstruction in the uterus. My first thought was that I had possibly to deal with twins. The uterus seemed to be unusually full. As part of the body of the baby was in the vagina and the hips and lower extremities in the uterus, it was difficult to explore the genital canal, but some kind of tumor could be distinctly felt projecting from the sacrum of the infant. On making strong traction the hips and lower extremities were suddenly delivered with a gush of a large amount of liquid. The body, which lived about fifteen minutes, weighed about fourteen pounds.

On examination, it was found that the entire coccyx and sacrum were undeveloped. The skin over the sacral region was elongated in the form of a sac, extending to the knees of the infant. The anal orifice was located about two inches below the perineum in front of the tumor. On the lower part (summit of tumor) coursed large veins, which had weakened the skin at this place, where under the strong traction the skin broke. The baby was otherwise well formed and fat.

Keith Building.

New Instrument.

A NEW SURGICAL MALLET.

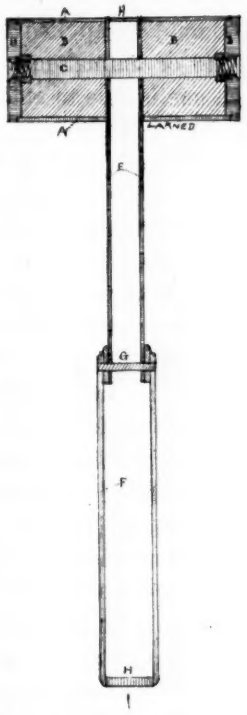
E. R. LARNED, M.D.
CHICAGO.

This instrument is made entirely of metal, presenting on all sides perfectly smooth surfaces, making it as easy to sterilize as any other surgical instrument.

The principal part of the mallet, the head, is made as follows: Two steel faces (D) 1⅜ inches in diameter and 3/16 inch thick, are turned in a lathe, leaving the center 5/16 inch thick and ⅜ inch in diameter, as shown in the sketch, which is full size. The shell of the head (A) is of seamless brass tubing and fits into little recessions in the steel faces. A block of pure aluminum is turned to exactly fit the inside of the shell. This filling (B) has a hole drilled through the center ¼ inch in diameter, through which runs a steel pin (C), the ends of which have right and left threads, the steel faces being screwed on this pin, after which the protruding ends are riveted flush with the steel faces.

The handle is made of seamless brass tubing, soldered and then held together at G with a small steel pin, which is riveted. The portion of the handle marked E is fitted into the hole drilled through the head to exactly admit it, before the steel pin (C) is put into place. In addition, the head (A) and the handle (E) are soldered at their connecting points. Two small plugs (H) close up the openings in the ends of the handle. The total length of the handle is 9 inches. The length of the head 3⅛ inches. The total weight of the mallet is 12 ounces.

The advantage this mallet possesses over others is proper size, being more nearly that of a small wooden carpenter's mallet which some surgeons have used because of its size. It



is balanced properly. It has the right "hang" and "feel." The impact of the mallet on a chisel is not the dull, heavy blow that one gets from the copper mallet or the lead mallet. Then, again, it can be boiled and made perfectly sterile, which is not possible in mallets made of wood or with rawhide faces.

The mallet is efficient, two being in use in large hospitals in this city. One has been used in the largest surgical clinic for the last seven years, during which time it has served its purpose well.

Any instrument maker can manufacture the mallet by following the drawing, which is an exact reproduction of the mid-section of the mallet, changing the dimensions to suit individual ideas.

5751 Prairie Avenue.

5. Much information regarding the Lawrence filter, its construction and operation has been obtained from the annual reports of the Massachusetts State Board of Health for 1893-1901, and also from the valuable paper by Knowles and Hyde (Transactions American Society of Civil Engineers, 46, 1901, No. 906), and the accompanying discussion of this paper by several experts.

The Admission to Membership in County Societies of Those Who Have Been Sectarians.—The *Iowa Medical Journal* says: "There is a whole lot of sentiment being wasted regarding this matter. The object of this reorganization is to broaden the medical profession and encourage those who intentionally or accidentally have cast their lots along sectarian lines, to renounce such selection and join us in making the grand profession of medicine what it should be."

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THE NOMENCLATURE OF TOXINS.

Bacterial and other toxins have proved to be of so complex a nature and subject to such alterations that a group of terms relating to them has developed. These terms are not devoid of confusion, owing to their multiplicity and similarity. The word toxin has come to have a limited and technical application. Ehrlich has concluded that it should be applied to those poisonous products of vegetable or animal metabolism by immunization with which one is able to obtain a specific antitoxin. Diphtheria and tetanus toxin, abrin, ricin, etc., are examples of the former, and snake poison of the latter. Toxins must also have a definite structure, that is to say, a haptophorous group by which they link themselves to cells and substances derived from cells, especially antitoxin, and a toxophorous group. This definition, then, excludes such poisonous substances as the vegetable alkaloids, as strychnin and morphin, and poisonous minerals, for which an antibody apparently can not be produced; these are toxic substances, but not toxins.

The bacterial toxins mentioned occur in solution in the cultures of the bacilli and may often be precipitated in an impure form by certain chemicals. It is to be noted that not all pathogenic bacteria secrete demonstrable poisons in culture media, although such organisms in disease may cause intense intoxication, a condition which we can not attempt to explain by the mere mechanical presence of the bacteria in the tissues. It may be that such organisms (typhoid, cholera) contain toxic substances which remain incorporated in the bacterial cells, and become effective only when the latter die or are dissolved. The term toxin has been applied, perhaps loosely, to cultures of the typhoid or cholera organisms which have been killed by heat. We have previously called attention to work showing that when autolysis of typhoid or dysentery bacilli is allowed to occur, a toxic substance goes into solution. The work, however, has not shown that these substances are toxins according to the conception mentioned above.

When Ehrlich undertook to establish a fixed method for estimating the value of diphtheria antitoxin he obtained confusing results, and was forced to make an analytic study of the toxin to clear up certain unexpected variations. For example, a toxin would gradually lose its virulence for the guinea-pig, but would constantly require the same amount of antitoxin to neutralize it. Naturally, it would be expected that as the toxin lost in virulence less antitoxin would be required to neutralize it. Again, a toxin of low virulence would sometimes require, relatively, more antitoxin for neutralization than one of higher virulence. It appeared that a toxin might lose in virulence but keep its original binding power for antitoxin. This indicated that toxin was far from a simple, uniform substance. Some of the phenomena seemed explainable by the assumption that the toxin molecule consists of two groups, one which has the combining power (haptophore) and another in which the toxic power resides (toxophore). This makes it possible to understand that the toxophore group might disintegrate, leaving the binding group still in condition to unite with antitoxin. This degenerated toxin has received the name toxoid, and is, on the whole, not poisonous, having lost its toxophore complex. But as the binding complex is retained it is still able to unite with antitoxin, and when injected into animals is able to unite with the cells and cause the production of antitoxin. In tetanus it is almost necessary to begin immunization with the toxoid or a weakened toxin. The discovery cleared many difficulties and suggested that careful analytic studies of a toxin should be made with the expectation of bringing to light other complexities. This Ehrlich did with the diphtheria toxin and found that he had to deal with a multiplicity of poisons in the same solution; as the toxin became older various degeneration products formed. He devised a method of expressing graphically the constitution of a toxin in the form of a "toxin spectrum," the evolution of which is very intricate. A grasp of the situation may, however, be obtained in the following statement: Having discovered the existence of toxoids, the degree of their affinity for antitoxin became of importance, in differentiating them from toxins. It was assumed that this affinity might be greater, equal to, or less than that of the toxin. For the determination of this a toxin was used which in a given quantity contained 100 toxin units (or fatal doses for the guinea-pig) and 100 toxoid units. The total binding power of the toxoids was then equal to that of the toxins, making a total of 200 binding units. These were completely neutralized, say, with 1 c.c., i. e., 200/200 c.c., of a standard antitoxin. When less than 200/200 c.c. of antitoxin was added some of the binding units of the toxin solution were unbound. It developed that the groups first set free were not toxic, i. e., they were toxoids, and a variety of toxoids which has a weaker affinity for antitoxin than toxin. If it were otherwise, some of the toxin would have been set free and a guinea-pig injected with the mixture would have died. These are the epitoxoids. As less and less antitoxin was added to the quantity of toxin mentioned nothing but epitoxoids was set free until the amount fell below 150/200 c.c.; then toxin began to be freed, and this continued in all mixtures until the quantity of 50/200 c.c. of antitoxin was reached. By this time all the 100 units of toxin had been freed, and 50 units of

toxoids. Carrying the experiment further showed that the remaining binding groups were also toxoids, but since they were the last to be freed they had a stronger affinity for antitoxin than the toxin had, and hence they were protoxoids. Syntoxoids are toxoids equal to pure toxin in their affinity for antitoxin. The epitoxoids are also known as toxons, and are not without toxicity for the guinea-pig, as they are able to cause the paralysis characteristic of diphtheria without other symptoms.

When Madsen and Dreyer injected their mixtures into rabbits it was found that not only the toxins but also the toxons caused acute death. However, by adding what was an excess of antitoxin for guinea-pigs and injecting the mixture into rabbits paralysis, as the only symptom, could be produced. Ehrlich has called this portion of the toxin solution toxonoid—toxic for rabbits, but not for guinea-pigs. Hence toxin, toxon and toxonoid are three toxic constituents of a filtered culture of the diphtheria bacillus. By further refinements in experimentation it was found also that the toxin could be resolved into prototoxin, deuterotoxin and tritotoxin, the differentiation being based on differences in affinity for antitoxin, and that there were also an alpha and a beta modification of each of these, according to the readiness with which they became changed into toxoids.

The work of Madsen and Dreyer is hardly less important in this connection than that of Ehrlich, since they have so fully corroborated and extended his discoveries, especially in regard to diphtheria and tetanus toxin. It is difficult to appreciate the vast amount of painstaking labor which was required to reach the results so briefly expressed above. They seem highly technical and one may be inclined to think they concern only theorists, but it was the realization of these very technical results that led Ehrlich to formulate the side-chain theory of immunity—a theory which has already yielded practical consequences of enormous value. These considerations are of particular interest now in view of the polemic being waged by Gruber on Ehrlich's conception of the toxin structure and the side-chain theory —in fact, on Ehrlich's theories as a whole—a subject to which we may return later.

PROLONGED FREEZING AND GERM LIFE.

While it has been generally conceded for some years that the mere fact of freezing did not kill bacteria, but only rendered them for the time incapable of multiplication, there has been a very general impression that the keeping of bacteria at a temperature below the freezing point for a long period eventually led to their death. Such intensely low temperatures as may be produced by liquid air fail to destroy at least the more resistant forms of bacteria. On the other hand, Sedgwick, Winslow and Park in the course of their investigation of the ice supply of Boston came to the conclusion that ice, even from contaminated water, became sterile after a month or perhaps even less. In a review of their work in the *Boston Medical and Surgical Journal*[1] it is stated that it may be concluded from these investigations that ice more than three weeks old is sanitarily as safe as a well-filtered water supply. Cases of typhoid fever due to ice might naturally be expected to occur, if at all, at the time immediately following the cutting of infected ice. As this is done usually in January, the ice could hardly be held responsible after March, at the latest, for any trouble, even were it known to be infected. It is almost needless to say that this statement attracted wide attention. There had been more than a suspicion that virulent typhoid bacilli might outlive the winter, even though kept below the freezing point for several months. The epidemic of typhoid fever at Plymouth, Pa., which was traced to the stools of a typhoid patient thrown on the snow at least three months before the outbreak of the epidemic, seemed to show this very clearly.

Unfortunately for the peace of mind of those who have felt that ice could be used with impunity in the summer time because of this declaration of the Boston investigating committee, there is a report[2] of an epidemic of typhoid fever due evidently to impure ice which occurred at least nine months after the infected ice had been cut and stored. This epidemic developed at the St. Lawrence State Hospital, three miles below the city of Ogdensburgh, the first patients coming down with the disease on October 2 of last year.

The tracing of the typhoid fever to the ice as the cause of this epidemic seems to be unquestionable. The ice house from which the suspected material was obtained was first opened for use—none of the ice having been previously withdrawn—about a week before the first cases of typhoid developed. During the months of January and February, 1902, when this ice was forming, there were three or four cases of typhoid fever in Ogdensburgh among users of well water. The drinking water of the institution is above suspicion, from both the laboratory and the practical standpoints, since it is from a public water supply, and no cases of typhoid fever occurred among those using it in Ogdensburgh. An examination of the ice showed definite evidence of organic contamination in the form of the colon bacillus.

As the result of this confirmation of the suspicion that there was sewage material in the ice, further investigations were made in the laboratory of the St. Lawrence State Hospital itself, and five colonies of bacteria were found, presenting characteristics resembling the typhoid bacillus. Of these cultures three proved to be of the colon bacillus, one of a bacillus not identified, while the fifth was a pure culture of the typhoid bacillus, as shown by all the generally accepted bacteriologic tests. Under the microscope this bacillus proved to be actively motile with the morphologic appearances of the *Bacillus typhosus*.

There seems no reason to doubt, then, that the typhoid bacilli may live for many months, perhaps even in-

1. Vol. cxlv, p. 557.
2. Amer. Jour. Med. Sci., October, 1903, p. 680.

definitely, in ice frozen at temperatures very near the zero point and kept under the favorable conditions that must exist for its constant preservation at temperatures well below the freezing point when properly stored as far north as Ogdensburgh.

One fact, however, of the Ogdensburgh epidemic deserves noticing, since it indicates that this specific instance can not be taken as positive evidence of the general retention by ice of bacteriologic impurities. Water frees itself in the process of freezing by throwing down its organic contents and foreign matter, and not by enclosing them and freezing them to death. Occasionally, however, masses of foreign substance are entangled in the process of freezing, and become enclosed in the ice. Such was the case with the ice tested at Ogdensburgh, and from the black masses included in its substance the cultures were made. There was no doubt concentration of infection in these inclusions and the rest of the ice may have been comparatively innocuous, though that can not be proven. There is one fact, however, that stands out prominently, viz., mere cold alone does not destroy the germs; therefore, the peril from ice is not altogether an improbable one, especially when macroscopically visible impurities exist.

THE FALLIBILITY OF SCIENTIFIC DICTA.

If one looks about him in the scientific world for the most striking characteristic of our times, he will find it, perhaps, in the systematic organization of investigative work. There has never before been a time when original research has been so carefully planned or so consciously directed as now. The world is tremendously impressed with the results of science attained during the last two centuries, but it would not be surprising, with the immense system of inquiry now in vogue, if during the twentieth century discoveries were made which would exceed in number and eclipse in grandeur those of all the centuries which have preceded.

In the forward march of science, great theories are originated, have their day and are demolished. But it is surprising how often an old theory, thought to be thoroughly extinct, will be exhumed and resuscitated. Like Colonel Bogy of the golf links, a scientific bogy may be "downed" one day, but it is likely to "down" its antagonists the next. The science of chemistry began with alchemy—the attempt of the ancients to manufacture gold out of the baser metals. Gradually the doctrine of the immutability of the "elements" developed and the efforts of the alchemists were believed to be attempts at the absolutely impossible; one who harbored their hopes was regarded as ridiculous. But the physicists and chemists have been making some startling discoveries in the recent past, as the result of which the elements have been shown to be less "immutable" than was thought. Each of them gives off radiations of minute particles, the so-called "electrons" or "ultimate corpuscles," each of which is at least 1,000 times lighter than the atom of H, and each of which, so far as can be made out, is the same as every other particle of the same magnitude, no matter what its source. It may not be true that the "element" radium decomposes into the "element" helium, as has already been asserted, but certain it is that physicists and chemists feel far less certain to-day of the elementary nature of the so-called elements than they have for a hundred years. Indeed, one of the oldest chemists in America was heard to say within a fortnight that, in his opinion, the principal work of the laboratories of physics and chemistry during the next ten years would be devoted to attempts to analyze and synthesize the elements. It is amusing to think of the excitement there would be among the gold-seeking alchemists of the middle ages—wherever they might be at the time—should some one be fortunate enough, in the not too distant future, to take electrons derived, say, from iron and combine them into the precious metal—gold. That such a thing may be suggested even shows to us clearly the great changes which are going on in chemical thought.

Again, there is the doctrine of "spontaneous generation" kept alive for so long by its supporters and especially by the unfortunate Bastian, until it was thoroughly extinguished by the researches of Tyndall and Pasteur. Would it be surprising if this dead doctrine were revivified? Surely no more so than the resurrection of alchemistic dreams. Those biologists who are busily engaged in the application of physical chemistry to the study of protoplasm are already cherishing again the possibility of sometime making living things from things not alive; some of them even dare to say so, and others would like to say so did they not fear that they would be suspected of carrying "bees in their bonnets." Truly, not all theories sleep that have closed eyes!

THE ALLEGED DANGERS OF STRYCHNIA.

In view of some recent criticisms regarding the use of strychnia as a cardiac tonic, it is well to note the other, and what clinical experience shows to be, the truer, side. Benedict[1] finds that strychnia approaches most nearly a strictly standardized remedy, chemically and physiologically; he says that, in his experience, it is the only drug from which a permanent result may be expected without danger or deleterious influence and which yet may be regarded as an artificial spur. He even suggests that strychnia may represent some chemical product of our organism, as caffein represents the alloxur bodies, more especially the xanthin radicle.

Of course, the beneficial use of strychnia implies reasonable care in its use, and his ideas as to this are specified as follows: "One milligram, t. i. d.: tonic dose for small adult, with no indication for marked effect. Two milligrams, t. i. d.: ordinary dose for gastric atony, secretory or motor, or for chronic cardiac weakness, functional or organic. Two milligrams five or six times

1. Therapeutic Gazette, Sept. 15, 1903.

daily: dose for marked cardiac weakness, either in medical or surgical cases; in the latter to give strength rapidly before operation or to prevent collapse afterward. This dosage should rarely be maintained for more than three or four days. Three to four milligrams: single emergency dosage in acute heart failure." Of course, individual circumstances may modify this dosage, but the above is given as near the average safe quantities in conditions mentioned above. Benedict says he rarely continues the use of strychnia or any other powerful drug for over two weeks, or usually for more than one week without interruption, and finds it more effective in this way. He has never yet seen a case of "snappy heart" from the use of strychnia in cardiac disease, though such a condition might result from overdosage, and he suggests that there is a tendency in reviewing our failures to incriminate ourselves and our drugs, and that strychnia may have unjustly suffered in this way.

Within the above limits of safety the danger from the drug must be very exceptional. No class of physicians employs this agent more freely than the neurologists, and it is not from them that we principally hear the warning of its dangers, notwithstanding the fact that the doses given are sometimes almost excessive. An example is the use of progressively increasing doses of strychnia in certain spinal diseases advocated years ago by Jewell and more recently by Hammond and, apparently, without fear of damaging effects. If the system can adapt itself, as it appears it can, to doses of more than a grain of strychnin daily without acute toxic symptoms it would seem that its poisonous effects were subject to some exceptions. While it is a drug that must not be incautiously used, nevertheless it does not deserve all the condemnation it has received. There is hardly any more reliable and useful agent in the pharmacopeia, and if it is as dangerous as some suggest, it is time for a thorough reinvestigation of the subject.

SOUTH DAKOTA LEGAL TECHNICALITIES.

The experience with the new medical registration law in South Dakota is in many respects similar to that of Illinois with its medical registration law. The act exempted all who were in practice at certain dates from the provisions of the law, hence, notwithstanding a special provision to meet such cases, a recent judicial decision makes it impossible to discipline any one who was in practice before that period. It was not anticipated, of course, that the judges would put such an interpretation on the wording of the act, but from this and the Illinois experience it would appear that still more caution will be required in drawing up medical practice acts than has been sometimes the case. It will not do to generally exempt any class, old or new, but the law should specify just what they are exempted from. As it is, there may have to be new legislation both in Illinois and South Dakota to bring a certain class of disreputable practitioners under any legal control. In South Dakota the matter has not yet, so far as we know, been passed on by the highest court and perhaps can not be regarded as entirely settled.

"THE AGE OF PAP."

In an article published not long since in one of our British contemporaries, Dr. Harry Campbell designated the period in which we live as the "age of pap," referring by this to the growing tendency to the omission from our diet of foods which require mastication. The teeth are becoming—to a certain extent at least—more and more *functus officio* organs. The result is that, as a United States official, Dr. Wiley, is lately reported as saying, the human race is becoming toothless. Wiley also includes hair in the cutaneous outgrowths which we are losing, but we trust that, if only for esthetic reasons, it will be a long time before the result he prophesies will be fully brought about. There is no doubt, however, that degeneration of the jaws and teeth, which has been progressing every since man became an intellectual animal and depended less on them for raptorial purposes, is going about as far as is required with our present idea of convenience and beauty. Let us hope that there will be still some people who will chew their food, not only for health reasons, but also for good looks. An English writer has seen some good in the American habit of chewing gum in the exercise it gives the jaws. We are glad there is some virtue in it.

AMALGAMATION OF MEDICAL SCHOOLS.

Last week the well-known Trinity Medical College of Toronto was united with the Medical School of the University of Toronto.[1] The medical faculty of the provincial university, as thus enlarged, contains the ablest medical scientists and practitioners in Ontario, and one of the strongest teaching faculties on this continent. Toronto, in the fusion of her medical schools, has added her example to that of some cities of the United States—an example which may well be seriously considered in some other places. A waste of money, time and energy involved in the organization and maintenance of two or more large medical schools where one would suffice is appalling. The concentration of effort, the saving of expense, the increase in efficiency and, not least, the increase in harmony in the activities of the profession which would result from the amalgamation of medical schools in many of our cities would be of incalculable value in furthering medical education. For successful "marriages" to take place between medical schools, the contracting parties must be high-minded and unselfish. The members of their faculties must care more for the good of their students, for the future welfare of the school and for the profession as a whole, than for their own personal interests. It must not be forgotten, though, that even after fusion has taken place and where the faculties are large, multiple dangers beset the path. Many adjustments have to be made, and there must be concessions on both sides, but an earnest desire to do the best thing, combined with honest open speech, will often overcome the greatest of difficulties of reorganization, especially where mutual respect, mutual consideration and mutual kindness prevail.

1. See Canada news column, this issue.

Medical News.

ILLINOIS.

To Hidden Shansi.—Dr. W. A. Hemingway, Oak Park, sails with his wife from San Francisco for his new field of labor in Shansi, China, on the *Coptic*, October 31.

Alleged Healers Give Bail.—"Drs." Parker and Hall, the alleged magnetic healers who were arrested in Omaha and brought back to Peoria to answer to the charge of swindling, were released on bail of $900 each.

Early Investigator of Hypnotism Dies.—J. Stanley Grimes, prominent in the early investigations of hypnotism in the middle of the nineteenth century and for a time professor of medical jurisprudence in the Castleton (Vt.) Medical College, died at Evanston, September 28, aged 96.

Sanitary Inspection of Illinois Cities.—During the past week Dr. E. F. Baker, inspector for the State Board of Health, has made an inspecton of Taylorville, Pana, Shelbyville, Carlinville, Carrollton, Petersburg, Havana, and Mattoon. The sanitary condition of all these cities is reported as good. A few cases of scarlet fever were found in and near Taylorville, and two cases of diphtheria at Pana, with one death. Havana is free from smallpox after a year's prevalence.

Examination of National Guard Medical Officers.—On September 26 a board consisting of Surgeon-General N. Senn, Assistant Surgeon-General G. Paull Marquis and Major Charles Adams held the first examination of candidates for commissions in the medical department of the National Guard, under the new military code. The examination was held in the Senn Hall, Rush Medical College, and six candidates appeared, four of whom were physicians, one a veterinary surgeon, and one a dentist. Examinations will be held semi-annually hereafter.

Chicago.

Personal.—Dr. Oel S. Misick has given up practice and will engage in banking business in Missoula, Mont.——Dr. V. Pleth has returned from abroad.

Poor Milk Prosecutions.—For selling milk below grade, nineteen dealers were fined from one to twenty dollars each, on October 1, by Justice Gibbons.

Health Department Changes.—Dr. William K. Jaques, head of the municipal laboratory, has resigned, and Dr. F. Eldridge Wynekoop, assistant superintendent, is temporarily in charge of the laboratory.

Hospital Opened.—The Victoria Memorial Hospital and Training School, which occupies the old home of ex-Mayor Swift, on Loomis street, was opened with an address by Dr. Ezekiel P. Murdock, October 2.

September Suicides.—Of the 54 deaths by suicide in September, 16 were caused by carbolic acid, 9 by gunshot wounds, 7 by gas asphyxiation, 6 by opium, 4 by cutting throat, 3 each by hanging, and undetermined poisons, 2 by paris green, and one each by chloroform, formaldehyd, hydrocyanic acid and burning.

Rush College Commencement.—At the quarterly convocation, held October 5, twenty-two were graduated from Rush Medical College (Medical Department, Chicago University). The address was delivered by Prof. L. Sherrington of Liverpool, England, his subject being "Localization of Cerebral Centers in the Ape." The lecture was illustrated by lantern slides.

Illinois Medical College Commencement.—On September 30 a class of 42 was graduated from the Illinois Medical College. The doctorate address was delivered by Hon. Edmund W. Burke; Dr. William C. Sanford, secretary, read the annual report; the dean, Dr. B. Brindley Eads, made the announcement of the graduating class, and the president, Dr. Heman H. Brown, conferred the degrees.

IOWA.

Personal.—Dr. Alvin B. Poore, Cedar Rapids, has returned from Europe.

Coming Examination.—The next examination of physicians will be held in the Capitol building, Des Moines, October 21 and 22.

Osteopaths Want Office.—A petition with five thousand signatures has been laid before the governor, asking that he appoint an osteopath as a member of the State Board of Health.

Infectious Diseases.—During August outbreaks of diphtheria occurred at Des Moines, of scarlet fever at Des Moines and Lost Nation, and of smallpox at Webster City, Massillon Township, Vandalia, Cascade, Runnells, Des Moines Township and Perry Township.

Medicine Sample Distribution Prohibited.—The City Council of Iowa City has passed a resolution making it a criminal offense punishable by fine to distribute broadcast samples of medicine. This action has been taken because a number of children have been made ill by eating or drinking samples of medicine thrown into dooryards by patent medicine men.

KENTUCKY.

Regret Dr. Lewis' Death.—At the meeting of the Daviess County Medical Society at Owensboro, September 15, resolutions were adopted respecting the death of Dr. Charles C. Lewis, Owensboro.

Louisville's Smallpox Record.—During the fiscal year just closed St. John's Eruptive Hospital, Louisville, admitted 1,105 smallpox patients. Of these 16 died, ten from smallpox, two from nephritis, and the others from gastroenteritis, pneumonia and heart disease.

Regulation of College Fees.—Since the catalogue of the Louisville Medical College was sent out the Kentucky State Board of Health has adopted regulations as to fees, etc., to which all medical schools must conform. In conformity to these regulations the dean, Dr. Clinton W. Kelly, announces that the fees of the college will not be less than $55 to any student for the session of 1903-1904.

To Test Status of a So-Called Charitable Institution.—In the fall of 1902 the John N. Norton Memorial Infirmary was sued for damages by a former charity patient who had undergone an operation and who, while under the influence of the anesthetic, was burned by the contact of a hot water bag. The attorneys for the institution, in answering the plaintiff's petition, pleaded that the Norton Infirmary was a charitable institution, and could not, under the laws, be held liable for damages. The plaintiff's attorneys deny that the infirmary is strictly charitable, and allege that it is conducted, at least indirectly, for compensation. Judge Gordon holds that if it is a charitable institution, it is not liable for damages to the plaintiff. The case will go to trial to decide on the character of the institution. This point has never been settled in Kentucky regarding an institution of that character.

Louisville City Hospital Troubles.—Superintendent Dr. Ellis Duncan and Superintendent of Nurses Miss Alice M. Gaggs have been summarily dismissed by the Board of Public Safety. On the return of Miss Gaggs from her annual vacation she found a scandal developed because of alleged immoral conduct on the part of two nurses and three orderlies at the hospital. After an investigation, in which Miss Gaggs asserts the charges were substantiated, the two nurses were discharged. Her action was sustained by Dr. Duncan. The nurses appealed to the Board of Public Safety and were reinstated, but the orderlies were dismissed. Miss Gaggs requested an investigation, which was refused, and without notice she was removed. Dr. Duncan's removal soon followed. Dr. George Jenkins, former secretary of the hospital, is temporarily in charge, and Miss Ziegler, a graduate of the hospital training school, has been appointed superintendent of nurses. At a conference held October 2 it was practically decided that changes in the management of the hospital will be made within thirty days. The deans of the six medical colleges in the city were present and agreed with the mayor and Board of Public Safety that it would be best to have a business man in charge of the hospital, the medical department being in charge of a house surgeon, who will have nothing to do with the business end. He will probably be chosen from the staff of internes, who will be appointed as at present, from the medical colleges.

MARYLAND.

Baltimore.

Bosley Reappointed.—On September 29 Dr. James Bosley was reappointed health commissioner at a salary of $3,000.

Vital Statistics.—During September there were 707 deaths and 767 births in the city. Of the deaths 28 were from typhoid fever, which, with diphtheria and scarlet fever, constituted the chief infectious diseases.

Personal.—Dr. Eugene F. Cordell fell down a stairway, September 28, and was severely injured.——Dr. Jackson Piper has gone to Atlantic City to spend several weeks.——Dr. T. Casper Gilchrist has returned from Europe.

Tuberculosis Exposition.—In connection with the meeting on tuberculosis to be held here in January next there will be

an exposition of appliances for combating infection and promoting cure and a series of popular lectures will be given.

The Herter Lectures.—The Christian A. Herter lecture, the first of the series established by Dr. and Mrs. Herter of New York City a year ago, was delivered by Dr. Herter at Johns Hopkins Physiological Laboratory, October 6, on "The Work of Pasteur."

The New College Year.—The Woman's Medical College opened October 1 with an address by Rev. Donald Guthrie, D.D. ——At the College of Physicians and Surgeons the address was by Dr. Geo. W. Dobbin on "The History of American Obstetrics."——That at the Maryland Medical College was by Dr. Alexander D. McConachie.——At Baltimore University Dr. A. Miller Reid was the speaker.——There was no formal opening at the University of Maryland.

MASSACHUSETTS.

Lynn Prepared for Emergencies.—The new smallpox hospital located near the contagious disease hospital on the outskirts of Lynn is almost ready to receive patients.

Osteopath Fined.—Everett P. Clisby, an osteopath of New Bedford, was fined $200, September 26, for practicing medicine without a license. He appealed and was held in bonds of $500. His defense was that by the title "doctor" he never meant anything but doctor of osteopathy.

Shot and Sandbagged, But Still Fights.—Dr. Frank Sanft, Roxbury, while returning from a professional call, was attacked by a footpad, sandbagged, and as he still resisted, shot through the foot. Notwithstanding his injuries Dr. Sanft was successful in fighting off his assailant.

Personal.—Dr. T. Adolf Jones, Boston, has been appointed professor of pathology and clinical microscopy at Flint Medical College, New Orleans.——Dr. Charles H. Richardson, Pittsfield, has been made a member of the surgical staff of the House of Mercy in that city.——Dr. Walter S. Carr, North Adams, has been compelled to give up practice on account of ill health, and will move to Colorado.

MICHIGAN.

Physician Fined for Delay.—Dr. William J. Hare, Detroit, was fined $5 by Judge Frazer, September 5, for failing promptly to respond to a subpena.

Crippled, But Continues Practice.—Dr. Isaac L. Polozker, Detroit, county physician, slipped while alighting from a car and fell, fracturing his left arm near the shoulder. After the arm was reset and a dressing applied, Dr. Polozker went pluckily to work.

Colleges Open.—Grand Rapids Medical College opened October 1 in its new buildings. The faculty has been increased as follows: Dr. William De Lano, lecturer on hygiene and sanitary science; Dr. Thomas C. Irwin, physical diagnosis; Dr. Lotan C. Read, dermatology; Miss Clara Nichols, general chemistry, and Dr. Joseph A. Heasley, nose and throat.—Michigan College of Medicine, Detroit, opened for the year, September 29. Addresses were made by Drs. William A. Hackett, Hal C. Wyman, and Dayton Parker, Detroit, and Dr. Alonzo B. Cornell, Kalamazoo.

PENNSYLVANIA.

Philadelphia.

Jewish Hospital Dedication.—On Sunday, October 4, an immense crowd attended the dedication of the three new buildings of the Jewish Hospital.

New Site for College.—Ground for a new building has been secured by the College of Physicians at the corner of Twenty-second and Locust streets.

Toy-Pistol Dealers Indicted.—Indictments against three retail dealers were recently returned by the grand jury on the charge of selling toy pistols to minors. Indictments were also returned against two wholesale dealers charging them with supplying the pistols to retailers. The action was prompted by the many cases of tetanus recently caused by pistol injuries.

The City's Health.—The records show that, for the week ended October 3, only two new cases of smallpox occurred. Typhoid fever still continues to a considerable extent, there being 76 new cases within the week, 5 fewer than for the previous week. Diphtheria and scarlet fever persist, there being for the week 60 new cases of the former and 70 of the latter disease.

Clinical Lecturers Selected.—The following have been selected to give the clinical lectures at the Philadelphia Hospital the coming fall and winter: Medical—Drs. Roland G. Curtin, S. Solis-Cohen, John H. Musser and William E. Hughes; surgical—Drs. W. Joseph Hearn and Dr. Orville Horwitz; neurologic—Dr. Charles K. Mills; laryngologic—Drs. R. B. Gleason and G. Morely Marshall; orthopedic—Dr. H. Augustus Wilson; dermatologic—Dr. Henry W. Stelwagon; pediatric—Drs. W. C. Hollopeter and J. Madison Taylor; Röentgen-ray therapeutics —Dr. M. Kassabian.

Pure Food Crusade.—What may be considered an important move in the crusade against the manufacture and sale of impure foodstuffs was recently marked in a suit begun by a retail dealer against a manufacturer of lard. The plaintiff seeks to recover $5,000 damages for injury to her business reputation. The retailer had previously been arrested on the charge of selling adulterated lard, which had been represented by the wholesale dealer as pure, but which, on analysis, was found to contain cottonseed oil and other adulterants. It is said that a number of brewers, distillers and dealers in spirituous liquors, who are to answer to the charge of manufacturing and selling adulterated wares, are to offer the defense that beer and other beverages are not food, and that, therefore, the law of 1895 does not apply to them. It is believed that such a defense will be unavailing, for, if the act cited should not cover the cases, Dairy and Food Commissioner Warren has recourse to two other earlier statutes specifically applying to the adulteration of malt and spirituous liquors. The penalty for the violation of the last-mentioned acts is specific and heavier than for that of the former.

GENERAL.

Navy Medical School Opens.—On October 1 the second session of the Navy Medical School opened in Washington with a class of 26.

Yellow Fever in Texas.—In Laredo, Texas, 37 cases of yellow fever are reported, and 16 of these had been, up to September 29, declared genuine. The situation in Mexico is not reported as particularly changed.

CANADA.

The Unified Toronto University.—The official opening of the new medical building and laboratories of Toronto University occurred October 1, marking the union of the faculties of Trinity and Toronto, old rivals for many years, but now strongly cemented into one, which henceforth will mark Toronto as a medical center of the first rank. The opening address was delivered by Professor Sherrington of Liverpool, President Loudon of the university presiding. The University of McGill was represented by Prof. T. G. Roddick, M.P., and Professor Adami; Queen's University, Kingston, by the Hon. Dr. Sullivan; Johns Hopkins by Profs. W. H. Welch and William Osler; Yale by Prof. R. H. Chittenden; Jefferson by Prof. W. W. Keen; Chicago by Prof. Lewellys Barker; the University of Buffalo by Roswell Park; the University of Michigan by Professor McMurrich, he and Dr. Barker being graduates of Toronto University; Harvard by Prof. Townsend Porter, and the University of Pennsylvania by Prof. A. C. Abbott. According to Professor Sherrington three kinds of workers must stand side by side in order that society may draw due benefit from wells of natural knowledge. First, there is the investigator, the fountain-head of the knowledge that is for distribution. After the investigator comes the teacher to whom it belongs to diffuse the knowledge; and third, there is the applier of natural knowledge. There is a new era dawning when the local university as an institution will be entitled to support from the public means. Professor Sherrington closed a very able address by saying: "So shall these laboratories prove a cornerstone for the upbuilding of a temple of knowledge, and a touchstone for the best ore of intellect within the bounds of this great land." At the close of the able lecture by Professor Sherrington, Professor Loudon called on each of the representatives from sister institutions, commencing with Professor Welch, who one and all expressed their appreciation of being present on such an auspicious occasion, and wishing the new medical faculty godspeed. In the evening in the gymnasium Professor Osler delivered the annual opening address to the students. Although he did not particularly believe in these opening addresses, he was very pleased to be the recipient of the honor on the present occasion. Like Professor Sherrington, he paid a high tribute to the work of Prof. A. B. McCallum of the department of physiology, whom, he stated, had won for himself a world-wide fame by his intricate studies. It was not too much to hope that London and Queen's would affiliate with the University of Toronto. Dr. Osler is a pronounced enemy of worry and warns against taking any thought of the

morrow. At the close of this lecture short addresses were delivered by the dean, Dr. Reeve, and by Dr. J. A. Temple, formerly dean of Trinity Medical College. Dr. Temple stated that after turning out prominent medical men the world over for twenty-eight years, he, like his confrères, did not like too well the thought of amalgamation, but believing it for the best interest of the profession in Toronto and the province of Ontario, they would do all in their power to uphold and advance that interest. Special convocation was held October 2, at which the following distinguished visitors received the honorary degree of LL.D. from the university: William Williams Keen, Philadelphia; William Henry Welch, Baltimore; William Osler, Baltimore; Russell Henry Chittenden, Yale University; Charles S. Sherrington, University of Liverpool; Henry Pickering Bowditch, Harvard University (*in absentia*). In the evening in the university the faculty of medicine tendered the visiting gentlemen a banquet, one of the principal speeches of the evening being delivered by Mr. Alfred Moseley, C.M.G., chairman of the educational commission which is shortly to visit the United States and Canada. Special addresses were also delivered to the students in the two large lecture rooms by Professors Barker, Abbott and Adami.

FOREIGN.

Anti-Alcohol Circular.—The Prussian government has issued an anti-alcohol circular similar to the one on tuberculosis for widespread, gratuitous circulation.

Plague Continues in China.—Both plague and cholera are said to be more serious than before reported near Tien Tsin, China. Foreign military authorities are coöperating in the quarantine of Peptang, a city on the Gulf of Chili, where bubonic plague is very prevalent.

Insurance of Physicians During Epidemics.—The government of a Caucasian province in which typhoid fever is endemic has insured the lives of all the physicians in the district against the fever. The 14 physicians are insured for more than $5,000 each; 2 students for half this sum, and 21 health officers for about $2,000 each.

Industrial Contagion of Syphilis.—The French courts recently decided a case admitting that an employer is responsible for damages in case of the transmission of syphilis by the intermediation of a professional instrument. In the case before the court, a glassblower claimed that he had been infected by the tube passed from hand to hand, but the evidence was not conclusive, and his claim was not allowed.

Consumptives on Mont Blanc.—Dr. Kuss, superintendent of the great public Angicourt sanatorium near Paris, has accompanied a number of tuberculous patients to the Vallot observatory near the summit of Mont Blanc. They expected to stay a week or two for physiologic tests and to determine whether rarefied air is of benefit to consumptives. Dr. R. Bayeux is there also, continuing Hénocque's studies on hematoscopy.

The Plague Epidemic at Marseilles.—Later reports state that no less than 29 workmen employed in the paper factory at Marseilles presented symptoms suggesting the pulmonary form of plague. They had been handling rags imported from Constantinople and dead rats had been found in the bales. Six deaths have occurred, but the energetic measures at once adopted seem to have arrested the epidemic, and the quarantined employes have been released. The factory was burned and all employed about the place were carried to a quarantine station. Two of the nurses tending the plague patients contracted the disease.

LONDON LETTER.

The Etiology of Sleeping Sickness.

The etiology of sleeping sickness or negro lethargy has of late received much attention. Its peculiar geographical distribution—between the valleys of the Senegal on the north and the Congo on the south—suggests a local cause. It has never been known outside this area. But the disease may develop years after leaving the endemic area. A commission of investigation was sent out to Uganda by the Royal Society in 1902. One of the members, Dr. Castellani, reported that in examining the cerebrospinal fluid obtained by lumbar puncture in a well-marked case he found a living trypanosoma. In further investigations he found the organism in 70 per cent. of the cases. As a working hypothesis he suggested that sleeping sickness is due to the trypanosoma and that in the last stages there is concomitant streptococcus infection. Another commission consisting of Lieut.-Col. Bruce, F.R.S., and Dr. Nabarro was then despatched. They arrived in Uganda on March 16, and have now made a "progress report." They adopted Dr. Castellani's method of examination. Ten c.c. of cerebrospinal fluid removed by lumbar puncture were centrifuged. The sediment was examined under the microscope. The trypanosomes were never very numerous (in some cases only one was found in several slides), but they were found in every one of 40 cases examined and at all stages of the disease. The cerebrospinal fluid of the general population was found not to contain trypanosomes. It was also shown that the parasites were present in the blood of all the patients suffering from the disease. The suggestion has been made that the trypanosomes are conveyed by some biting insect. Experiments show that the Uganda tsetse fly can carry the trypanosoma from animal to animal.

Roman Catholicism and Leprosy; Leprosy in Colombia.

In maintaining the fish hypothesis of leprosy Mr. Jonathan Hutchinson has often adduced facts tending to show that the fast days of the Roman church are in many parts of the world conducive to the spread of the disease. In a recent letter to the *Times* he makes a strong point out of the prevalence of the disease in Colombia. Here the earliest Spanish settlements were made, and, according to tradition, the first cases of leprosy on the American continent occurred. The disease is now frightfully prevalent there, much more prevalent than in India, which has been described as "the land of the leper." In Catholic Colombia where the consumption of fish receives a stimulus from religious ritual there are 70 lepers per 10,000. In India where large sections of the population have a prejudice against fish there are only 6 lepers per 10,000. Mr. Hutchinson asks what explanation those who believe that leprosy spreads by contagion have to offer. The Colombians do not expose themselves to the risk of contagion more than the Hindus, and during the last 30 years more energetic measures of segregation have been enforced in the former country. Further, the great prevalence of the disease in Colombia corresponds to the condition of fish supply. In many inland districts the natural supply of fish is deficient. Here, as in mid-Europe of the middle ages, an artificial demand creates a supply in bad condition. Moreover, fast days occur all through the year, during many months of which fresh fish may be out of season and not obtainable.

The Plague in India: The Rising Epidemic.

During the last week of August the mortality from plague has much increased in the Bombay Presidency, the deaths rising from 2,838 to 5,568. In Central India there has been an increase from 131 to 331 and in Mysore from 331 to 535. In the whole of India the mortality has risen from 3,613 to 6,817.

Correspondence.

Postmortems.

CHICAGO, Sept. 29, 1903.

To the Editor:—Referring to your editorial of September 5, on "Compulsory Postmortems," it seems to me worth while to emphasize the fact that permission for postmortems can frequently, if not usually, be obtained if the friends are duly considered and properly approached. It would certainly be a salutory custom from the layman's point of view if it were traditional to hold postmortems on all the dead, especially if the physicians in charge were expected by custom to write their colleagues to be present. The wholesome effect that this "facing the music" has in hospital life in calling forth every known diagnostic effort, and leading to due appreciation of responsibility because of the fear of criticism at the morgue table by one's colleagues, is well known to all who have been internes. If the layman fully understood the inward significance of the phrase "Dead men tell no tales" autopsies would be much more general than they are, and, incidentally, I see no reason why some lay representative of the family should not be present if it were so desired.

From the general practitioner's point of view there is no need to make postmortems on such as die after a typically defined course of some well-known disease, as such pathology may be seen every day in the larger hospitals, but sometimes the diagnosis remains obscure to the end or ill-defined complications arise that the truly scientific physician would like cleared up if possible. He is often able by the exercise of a judicious finesse to make a fairly complete autopsy through a four or

five inch incision made between the ensiform and the umbilicus. If the physician has the tact and takes the trouble to explain how very small the incision will be, that it will be neatly closed with white silk—untidy work on the dead is a desecration unworthy a physician—that all organs will be replaced if desired, that nothing but the abdominal wall will be cut when this can be promised, that the family will be welcome at the autopsy if this be practicable, as it sometimes will, and that the embalmer may do his work at the same time, then it will be found that many autopsies may be secured that are lost by neglecting to remove the belief that it is necessarily an extensive mutilation, leaving many visible marks. Where the brain is concerned a cleanly worker can promise that the incision will be entirely hidden by the hair and no evidence of the examination be noticeable. JAMES W. WALKER, M.D.

A Universal Practitioner's License.

LOS ANGELES, CAL., Sept. 4, 1903.

To the Editor:—In THE JOURNAL, August 29, p. 568, among the unsuccessful candidates in the Tennessee reports of registration, candidate 54, a graduate of the College of Physicians and Surgeons, Baltimore, class of 1876, failed with a per cent. of 70. This fact substantiates the remarks of Dr. T. A. Borton in his article "The Turning Down of the Old Practitioner" published in THE JOURNAL, August 22, p. 505, with the exception that here the other unsuccessful candidates were nearly all recent graduates. Not knowing the questions asked and judging from the markings alone, I have nothing to say against this particular examining board; but I would like to have the following remarks reach those members of the profession who have more influence and power than has the average general practitioner. Something more is needed than a higher curriculum for the elevation of the profession, something that will make the American public respect the well learned doctor and not the well-to-do "Dock," as Dr. W. E. Quine classified them in one of his eloquent speeches. Any school with the best facilities and longest course in this country or abroad furnishes only the key to knowledge. Many of the best teachers in medicine to-day did not know the difference between an acid and an alkali at the time of their graduation years ago. The majority of successful practitioners, who were good students ten years ago, would not be able to pass a technical examination to-day with a higher per cent. than 60, and I do not think it right to make the old practitioner suffer for the pre-existing laxity of the laws in any shape or manner, and all these different board examinations in the eyes of the public, prove to be a lack of self-confidence somewhere, by not recognizing the credentials of a reputable medical college from one state to another. The more privileges there are granted to improve the condition of the general practitioner, the more encouragement there will be for progressive study and investigation, and the fewer there will be of those who resort to quackery, criminal operations, fraudulent certificates and unethical conduct toward one another for the sake of the dollar. To remedy this, or at least the greater part of it, I beg to suggest the following rough sketch:

The American Medical Association shall elect one member in each state for the term of one year. These gentlemen shall constitute the Medical Council of the United States. Their aim shall be to elevate or to better the educational, moral and material condition of the American practitioner. They shall hold regular conventions at least twice a year. At their first convention they shall at once declare all those colleges which are now members in good standing in the Association of American Medical Colleges entitled to grant an interstate certificate to each of their graduates, after passing a satisfactory examination under the state board of examiners, in which the state member of the council shall act as chairman at the time of the examination, and on the same principles conducted now by the different boards. This interstate certificate shall entitle the holder to practice medicine and surgery all over the Union, or, at least, in those states that will hold membership for reciprocity in the Medical Council at that time. Those states that will join the Medical Council later on will have to open their doors to the same candidates that passed the council's examination before their membership began.

This council shall also issue an interstate certificate to every old practitioner in good standing and holding a state license who is a member of the United States Medical Council, without an examination.

This council shall have judiciary power to decide on questions arising from time to time in the different states and relating to medical colleges, state board examinations, state medical societies and all other interests in the general welfare of the profession at large. The decision of the council in every case shall be final.

Considering the advance in surgery made by American surgeons, I am sure that foreign countries will seek reciprocity with the United States in the near future.

423 California Street. S. B. LYON, M.D.

State Boards of Registration.

American Confederation of Reciprocating, Examining and Licensing Medical Boards.—A meeting of this body is called at the Southern Hotel, St. Louis, for October 27. An invitation is extended to all licensing boards to be represented at the meeting. The secretary of the confederation is Dr. B. H. Harison, Sault Ste. Marie, Mich.

Preliminary Examinations.—A committee of the Michigan State Board of Registration in Medicine met at Detroit to look into the work being done by the different medical colleges of that city. The committee formulated a standard for the admission of students to the medical colleges of the state. The law requires that matriculants must at least be graduates of high schools having a classical course. Those who are not will have to pass an examination.

Marriages.

EMIL C. BECKER, M.D., to Miss Ida Grace Beal, both of Chicago, September 16.

EDWARD HICKS HUME, M.D., to Miss Lotta Carswell, both of Baltimore, September 24.

LOUIS P. HAMBURGER, M.D., to Miss Freda Cohn, both of Baltimore, September 20.

HENRY MAYNADIER FITZHUGH, M.D., to Miss Mary Aldridge, both of Baltimore, September 23.

ADELBERT H. BENSON, M.D., Faxon, Okla., to Miss Ella M. Rahnapop of Chicago, September 23.

J. M. BIEDLER, M.D., Bridgewater, Va., to Miss Ina E. Long, Shenandoah County, Va., September 16.

FREDERICK WILLIAM PARKER, M.D., to Miss Grace Elizabeth Peabody, both of Chicago, September 23.

BENJAMIN R. PARKE, M.D., Wellsville, Ohio, to Miss Roberta Reynolds of Buffalo, N. Y., September 23.

EUGENE GATES, M.D., Two Rivers, Wis., to Miss Gertrude Cordelia Marsh of Chicago, September 17.

HENRY F. HASKINS, M.D., Kingman, Kan., to Miss Bertha B. Knappenberger of Penalosa, Kan., September 20.

DANIEL F. ROYER, M.D., Orange, Cal., to Mrs. Hettie Wilbur of Los Angeles, at Kingman, Ariz., September 16.

ARTHUR N. MCKEEVER, M.D., Romney, W. Va., to Miss Katherine Keller, at Frostburg, Md., September 23.

HARVEY GRANT BECK, M.D., Baltimore, to Miss Katherine Elizabeth Clagett, at Blairsville, Pa., September 23.

SIMON FLEXNER, M.D., New York City, to Miss Helen Whitall Thomas, at Bryn Mawr College, Pa., September 17.

WILLIAM VAN VALZAH HAYES, M.D., New York City, to Miss Mary Coulbourne Conner of Altoona, Pa., September 9.

MERIWEATHER LEWIS ANDERSON, M.D., of Albemarle County, Va., to Miss Annie Tatum, at Richmond, Va., September 23.

Deaths.

Calvin Skinner, M.D. Dartmouth Medical College, Hanover, N. H., 1841, surgeon of the One Hundred and Sixth New York Volunteers in the Civil War, some-time president of the Northern New York Medical Society and the Franklin County, N. Y., Medical Society, died at his home in Malone, N. Y., September 24, aged 85.

John M. Allen, M.D. University of Vermont, Burlington, 1890, a member of the American Medical Association, surgeon to Brightlook and St. Johnsbury hospitals, member of the Vermont State Medical Society, who was injured in an automobile accident, September 17, died at his home in St. Johnsbury, Vt., September 18.

J. B. Winn, M.D., of Macon, Mo., in whose honor the Macon County Medical Association gave a banquet a few years ago, the oldest physician in Northern Missouri, died at the home of his daughter in Kirkwood, Mo., September 23, aged 88.

Daniel B. Howard, M.D. Albany (N. Y.) Medical College, 1865, ex-president of the Warren County Medical Society, died suddenly at his home in Warrensburg, N. Y., September 21, from neuralgia of the heart, aged 62.

George Doughton, M.D. College of Physicians and Surgeons, Baltimore, Md., 1884, of North Wilkesboro, N. C., died at the University Hospital, Baltimore, September 24, after an operation for cancer of the neck, aged 38.

Frederick J. Halton, M.D. Long Island College Hospital, Brooklyn, 1883, after a long invalidism from rheumatism, died at his home in Brooklyn, N. Y., September 24, from valvular heart disease, aged 45.

Stephen Terry Biggers, M.D. Southern Botanico-Medical College, Macon, Ga., 1835, a pioneer of Atlanta, Ga., died at Cornelia, Ga., September 21, from pleurisy, after an illness of twelve days, aged 92.

George W. Crider, M.D. Medical College of Indiana, Indianapolis, 1879, of Buck Creek, Ind., died at the Home Hospital, Lafayette, Ind., September 21, from heart disease, after a long illness, aged 68.

Samuel T. Dodd, M.D. Western Reserve University, Cleveland, Ohio, 1867, died at his home in East Palestine, Ohio, September 22, from heart disease, after a lingering illness, aged 68.

Margaret Eleanor Peery, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1897, of Monticello, Iowa, died at Butte, Montana, from acute pleurisy, September 19, aged 47.

William E. Naughton, M.D. Long Island College Hospital, Brooklyn, 1896, died at his home in Brooklyn, N. Y., September 23, from pneumonia, after an illness of one week, aged 29.

Robert H. Gordon, M.D., quarantine officer of Norfolk, Va., during the yellow fever epidemic of 1855, died suddenly at his home in that city, September 22, from apoplexy, aged 77.

Lincoln A. Stewart, M.D. Boston University School of Medicine, 1895, of Clinton, Mass., was drowned in the Penobscot River, near West Brookville, Me., September 20, aged 55.

Ernest W. Spinney, M.D. Chicago Homeopathic Medical College, 1896, died at his home in Reed City, Mich., September 22, from appendicitis, after a short illness, aged 35.

James A. Johns, M.D. Medical College of the State of South Carolina, Charleston, died suddenly at his home near Westminster, Ga., September 11, from paralysis, aged 71.

Joseph L. Hagerty, M.D. Rush Medical College, Chicago, 1870, died at his home in Topeka, Kan., September 24, after a long illness due to exposure during the recent flood.

George W. Colby, M.D. National Medical College, Washington, D. C., 1869, for more than 35 years a practitioner of Sutton, Vt., died at his home in that place, September 13.

Edward C. Swift, M.D. University of Pennsylvania, Philadelphia, 1868, died at his home in Easton, Pa., September 23, after an invalidism of nine years, aged 60.

William C. Wells, M.D., resident physician at the Reed City (Mich.) Sanitarium, died suddenly at the institution, September 19, from apoplexy, aged 70.

John T. Sankey, M.D. University of Pennsylvania, Philadelphia, 1847, died at his home in Tharin, Ala., September 18, after a protracted illness, aged 77.

E. G. W. Simpson, M.D. McGill University, Montreal, 1901, died at his home in Lennoxville, Que., September 23, from typhoid fever, aged 27.

Henry C. Sheppard, M.D. Hahnemann Medical College, Philadelphia, 1878, died at his home in Germantown, Philadelphia, September 23, aged 63.

Auburn C. Henry, M.D. Memphis Medical College, 1859, died suddenly from heart disease at his home in Woodlawn, Ala., September 24, aged 60.

Orsemas Deremo, M.D., an eclectic physician of Elon, Iowa, died at his home in Center Township, September 20, after a long illness, aged 78.

Mary A. Boyd, M.D. Hahnemann Medical College, Chicago, 1886, died suddenly at her home in Los Angeles, Cal., September 21, aged 62.

John Person, M.D., died at his home in Fremont, N. C., September 18, aged about 75.

Lucius C. Coke, M.D. Medical College of Virginia, Richmond, 1859, died at his home near Palmyra, N. C., September 10, aged about 70.

Jedediah T. French, M.D., 1840, of Knoxville, Iowa, died at the home of his daughter in Hutchinson, Kan., September 23, aged 80.

William P. Rothrock, M.D. Jefferson Medical College, Philadelphia, 1842, died at his home in Floral, Kan., September 13, aged 83.

Miscellany.

The Union of the Profession in New York.—The following correspondence and action make it look very promising for an amalgamation of the two organizations in New York:

SYRACUSE, N. Y., May 28, 1903.

Dr. F. H. Wiggin,
President of the New York State Medical Association.

My Dear Doctor:—At the last meeting of the Medical Society of the State of New York the committee on conference appointed to confer with a similar committee of the New York State Medical Association, after making its report, was continued and instructed to await the action of the American Medical Association at New Orleans before considering further the methods of amalgamating the regular profession of the State of New York.

At a recent meeting of the American Medical Association radical action was taken removing the obstacle which prevented unification. Appreciating the fact that no further barrier stands in the way of unifying the profession of the State of New York into a single state society, the committee representing the Medical Society of the State of New York would respectfully ask the New York State Medical Association that further conference with its representatives be arranged, with the object of speedily settling on a definite plan which shall form the basis for amalgamation of the two existing bodies. In making this request the committee representing the Medical Society of the State of New York assures the association of its earnest desire to increase the influence of the state profession by the action suggested; that it would further state to that body that it is ready to suggest to he Medical Society of the State of New York that it amend its charter to continue, consolidate and amend Chapter 138 of the Laws of 1806, Chapter 94 of the Laws of 1813 and Chapter 452 of the Laws of 1900 for the purpose of cultivating and advancing the science of medicine, the promotion and protection of public health, and the establishment of a death benefit fund for the dependents of the members of the Medical Society of the State of New York. That it feels justified still further in assuring the association that it will recommend to the state society the method of organization founded on the plan suggested by the American Medical Association and considered by the joint conference when in session in April, 1902, and that all other matters of detail which must be considered before final action can be taken by the respective societies must, of necessity, become subjects for conference.

The committee asks for careful deliberation in conference, that both the society and the association may in the near future be able to present completed and satisfactory plans to the state bodies for ratification. Respectfully,

(Signed) Henry L. Elsner, chairman; A. Jacobi, A. Vander Veer, George R. Fowler, committee.

NEW YORK, June 10, 1903.

Dr. Henry L. Elsner,
Chairman Committee on Conference,
Medical Society of the State of New York,
Syracuse, N. Y.

My Dear Doctor:—I have received your communication of the 28th requesting the appointment by our association of a committee to confer with your committee relative to plans for uniting our state bodies, signed by yourself, Drs. A. Jacobi, A. Vander Veer and George R. Fowler, and I shall take pleasure in presenting it to our council at the earliest practicable moment for consideration and such action as they may see fit to take on it, as, under our constitution and by-laws, matters of importance are so referred.

Respectfully yours,
(Signed) Frederick Holme Wiggin, president.

In pursuance to the above a special meeting of the Council and Fellows of the New York State Medical Association was held in the New York Academy of Medicine, at which there were 70 present. After reading the above correspondence the following preamble and resolutions were offered by Dr. Joseph D. Bryant and were unanimously adopted:

WHEREAS, The members of the New York State Medical Association desire a union of the medical profession in the State of New York, and

WHEREAS, It is deemed expedient, for the attainment of this purpose, to make further effort to bring together the New York State Medical Association and the Medical Society of the State of New York under the name of "The Medical Society of the State of New York."

Resolved, That a committee of five be appointed by the chair, and said committee is hereby empowered to do whatever is necessary and expedient to bring about such a union in a just and equitable manner, and

Resolved, That the committee so empowered may confer, cooperate and unite with a committee of the Medical Society of the State of New York for the purpose of forming said union of the two medical organizations, and

Resolved, That a copy of these resolutions be transmitted to the secretary of the Medical Society of the State of New York, with a request that their conference committee be granted similar powers.

The following committee was appointed: Drs. E. Eliot Harris, chairman, Julius C. Bierwirth, Alexander Lambert, Parker Syms, and Wisner R. Townsend.

Bearing on this matter is the action of the committees appointed by the Cortland County Medical Society and Cortland County Medical Association, held September 4, when the following resolution was adopted:

WHEREAS, About 35 or 40 per cent. of the members of the Cortland County Medical Society are members of both the society and association,

Resolved, That we believe that we express the sentiment of nearly all the profession of the county in the desire for the harmonious union of the two medical organizations of the state, since we believe our influence and power in the state in obtaining medical legislation and preventing the enactment of harmful laws, would be greatly enhanced thereby, and we recommend that all proper measures be taken to bring about this end.

The committee for the Cortland County Medical Society consisted of Drs. F. W. Higgins, H. T. Dana and J. W. Whitney.

The committee for the Cortland County Medical Association consisted of Drs. S. J. Sornberger, C. D. Ver Nooy, and F. D. Reese.

Book Notices.

CONSUMPTION A CURABLE AND PREVENTABLE DISEASE. What a Layman Should Know About It. By Lawrence F. Flick, M.D., Founder of the Pennsylvania Society for the Prevention of Tuberculosis. Cloth. Pp. 295. Price, $1.00. Philadelphia: David McKay. 1903.

This little volume is, as its title indicates, an attempt to instruct the laity in regard to this disease of which the public as well as the profession have of late years heard so much. There has been an immense amount of literature and a considerable amount of misconception on the subject. This work is intended to correct the latter and to give a fair and unexaggerated view of the disorder and its prevalence. It is a little difficult to steer clear of the popular and professional tuberculophobia on the one hand and of too great laxity as regards the real peril of the disease on the other. On the whole we think Dr. Flick has taken a judicious middle course. Any one who reads his book through ought to have at its close a fairly well-balanced mind as regards the dangers and the possibilities of tuberculosis. Reading a special chapter alone would not be sufficient. Dr. Flick evidently takes the view that there is a decided difference between bovine and human tuberculosis and that the dangers of ingestion of tubercle bacilli in meat and milk are not by any means as great as held by some authors. We would not say, however, that he encourages an absolute lack of precautions in this respect. The point he makes is that the experiments that have been made have been persistent, animals have been continuously fed on tubercles and every possibility for the contraction of the disease has been employed, whereas in the ordinary use of meat and milk as done by the human species in the ordinary course of life, the conditions are quite different. He says that perhaps the strongest argument that may be advanced against the view that meat and milk are sources of the seed supplied for human tuberculosis is found in clinical experience. No indisputable case in which human tuberculosis has been thus contracted has been put on record. Of course, this is a matter of individual judgment, but we ourselves doubt whether any of the reported cases will stand a searching criticism if other possibilities of infection were thoroughly excluded. The book is very neatly gotten up, nicely printed, of convenient size and should do good.

A TEXT-BOOK OF PATHOLOGY. By Alfred Stengel, M.D., Professor of Clinical Medicine in the University of Pennsylvania. With 394 Text Illustrations, Many in Colors, and 7 Full-page Colored Plates. Cloth. Pp. 933. Price, $5.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

This work appeared first in September, 1898. The favor with which it has been received by the profession is well shown by the fact that it has reached its fourth edition in less than five years. In this fourth edition the most important changes and additions to be noted are found in the chapters on the bacterial diseases and immunity and allied processes. The enormous amount of work being done in this line throughout the world is constantly adding to our knowledge and makes frequent revision of text-books necessary. In this volume the above-mentioned subjects have been brought up to date, and the various theories of immunity, especially Ehrlich's side-chain theory, are clearly set forth. Mention is also found of the recent work of Reed and Carroll on yellow fever. Not the least important addition to be noticed is an appendix of about forty pages on pathologic technic. This includes examination of fresh specimens; methods of hardening and staining special tissues; blood stains and bacteriologic examinations. It adds materially to the value of the work as a whole, which is an excellent one and can be recommended.

HIGH-FREQUENCY CURRENTS IN THE TREATMENT OF SOME DISEASES. By Chisholm Williams, F.R.C.S. Edin., M.R.C.S. Eng. Cloth. Pp. 222. Price, $2.75 net. London and New York: Rebman, Ltd. 1903.

This is an English work on electrotherapy. The author started, as he says, with some skepticism as to the value of these currents, but after an extensive trial became convinced of their great usefulness in some cases. The book is largely made up of a description of the apparatus. The diseases in which he has found the treatment beneficial are briefly noticed at the end and include diabetes, gout, chronic rheumatism, obesity, hysteria, anemia, chlorosis, neurasthenia and pulmonary tuberculosis. The latter is treated of at considerable length, and he finds this treatment of marked benefit. He is strongly of the opinion that the application or use of these currents in tuberculosis sanitaria will greatly increase the number of cures. Dyspepsia is also discussed at some length. Among local diseases he mentions lupus, both of the tubercular and erythematous types, eczema, sciatica, headache, etc., and malignant growths.

LESSONS IN DISINFECTION AND STERILIZATION. An Elementary Course of Bacteriology, Together with a Scheme of Practical Experiments Illustrating the Subject-matter. By F. W. Andrewes, M.A., M.D. Oxon., F.R.C.P. Lond., D.P.H. Cantab., Lecturer on Pathology, Pathologist and Sanitary Officer to St. Bartholomew's Hospital, London. Cloth. Pp. 222. Price, $1.05. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1903.

We have experienced considerable satisfaction in the perusal of this little work, which is a remarkably clear and readible statement of the general facts in regard to sterilization and disinfection. As the author says, it will probably be of some service, not only to nurses but also to practitioners who have not had the opportunity for a regular course in bacteriology. While it does not cover the ground as fully and in details as does the work of Rosenau, it is a convenient and concise statement of the general methods of disinfection and also gives some accounts of the bacteria concerned in infection, full enough indeed to meet the ordinary wants of the general practitioner for information on these subjects. The book is one that may be recommended.

PROTOZOA AND DISEASE. By J. Jackson Clarke, M.B. Lond. Cloth. Pp. 177. Price, $2.50 net. New York: Wm. Wood & Co. 1903.

While this book has only recently appeared and is perhaps the best available account of animal disease-producing organisms that we have at the present time, the progress in this line has been so rapid that we find many subjects are omitted. Still, it is an excellent little treatise and can be recommended. The book is well illustrated, well written and will be valuable for ready consultation by pathologic workers and others.

AN ENGLISH HANDBOOK OF THE PARIS MEDICAL SCHOOL. By A. A. Warden, M.D., Visiting Physician to the Hertford British Hospital, Paris. With Prefatory Letters by Lord Lister and Prof. W. W. Keen. Paper. Pp. 72. Price, 2s. London: J. & A. Churchill. Philadelphia: P. Blakiston's Son & Co. 1903.

Physicians proposing to visit Paris to see clinical work will find this little book of considerable value. It gives the location of the various public and private hospitals, and tells how to reach them; gives a list of the attending physicians and surgeons and hours of attendance; also information in regard to the practice of medicine in France, and in regard to other matters of special interest to medical men visiting the French capital.

Association News.

List of new members for the month of September, 1903:

ARIZONA.
Tyroler, Adolph, Williams.

ARKANSAS.
Crutcher, William, Pine Bluff.
Donnell, R. A., Malvern.
Johnson, R. F., DeQueen.
Hayes, Sr., John W., Eureka Springs.
Logan, B. C., Mirrilton.
Rowland, W. T., Arkadelphia.

CALIFORNIA.
Bloch, Herbert I., San Francisco.
Cunnane, W. B., Santa Barbara.
Emerson, Mark L., Oakland.
Macleish, A. L., Los Angeles.

DISTRICT OF COLUMBIA.
Durfee, R. B., Washington.

FLORIDA.
Mixson, J. F., Otter Creek.
McKuistry, J. F., Gainesville.

GEORGIA.
Denson, E. J., Allentown.
Charon, Thomas, Donalsonville.
McLain, C. F., Calhoun.

ILLINOIS.
Hamilton, C. L., Dwight.
McCauley, Lee, Brussels.
Simpson, J. P., Palmer.
Falker, William H., Chicago.
Strawn, Julia C., Chicago.
Purviance, W. E., Chicago.
Wenstrand, E. W., Chicago.

INDIAN TERRITORY.
Watson, Frank L., Alderson.

INDIANA.
Goar, Charles S., Indianapolis.
Green, T. G., Shelbyville.
Pugh, F. H., Williamsport.

IOWA.
Barfoot, A. F., Decorah.
Henderson, Edgar B., Marengo.
McClellan, W. S., Morning Sun.
Pruitt, George A., Blanchard.
Roberts, France C., Ft. Madison.
Savre, L., Osage.
Scanlan, Maurice, DeWitt.
Wescott, L. A., Cherokee.
Wilson, J. Miller, Colfax.

KANSAS.
Weaver, A. J., Concordia.

KENTUCKY.
Cohn, Seldon, Fulton.
Taylor, B. M., Greensburg.
Adams, Jesse J., Munfordville.
Bate, R. A., Louisville.
Buchanan, J. B., Campbellsville.
Bruce, F. Edward, Elkton.
Bryant, Sarah Felt, Hardyville.
McCauley, W. C., Versailles.
Robinson, W. B., Corinth.
Stine, Frederick A., Newport.
Wilson, John E., Falmouth.

LOUISIANA.
Cooper, John H., Welsh.
Hoffpauer, M. L., Crowley.
Marable, Augustus, Vidalia.
McGoldrick, James, Coushatta.
Worley, P. C., Gilliam.

MAINE.
Baker, Clarence A., Portland.
Butler, Harry, Bangor.
Foss, C. W. P., Brunswick.

MASSACHUSETTS.
Holland, H. T., Boston.
Spear, Edmund S., Boston.
Conroy, Peter J., Everett.
Schnelder, J. P., Palmer.
Shanahan, T. J., Brookline.

MICHIGAN.
Huizinga, Thomas G., Zeeland.
Wilton, Albert H., Tompkins.
Derck, W. P., Marysville.
Westrate, Paul, Grand Rapids.
Abbott, Arthur W., Ludington.
Attridge, J. A., Detroit.
Berry, H. G., Mount Clemens.
Brady, Emory J., Constantine.
Campbell, E. R., Flint.
Curnalia, C. C., Roscommon.
Drake, W. M., Breckenridge.
Gleason, S. W., Greenville.
Hartley, Sophie M., Ann Arbor.
Larson, C. F., Crystal Falls.
McColl, John A., Grand Rapids.
Macleod, A. G., Calumet.
McLennan, H. E., Bay Mills.
McMeekin, James W., Saginaw.
Main, John T., Jackson.
Moore, J. R., Ironwood.
MacDonald, N. S., Hancock.
Thompson, A. B., Grand Rapids.
Wilbur, E. P., Kalamazoo.

MISSISSIPPI.
Bright, Ira B., Greenwood.
Cooper, B. D., Duncan.
Fahnestock, E. Morris, DeLisle.
Hall, Andrew J., Natchez.
Harrison, L. D., Clarksdale.
Hitt, Joseph P., Clayton.
Jones, T. M., Hernando.
Phillips, George C., Lexington.

MISSOURI.
Bedel, Adelheid C., St. Louis.
Bristol, B. J., St. Louis.
Davis, Wheeler, St. Louis.
Heyer, Charles, St. Louis.
Jordan, A. P., St. Louis.
Nietert, H. L., St. Louis.
Taussig, F. J., St. Louis.
Allen, F. W., Callao.
Bland, Warren H., Vandalia.
Coon, D. W., Trenton.
Farrow, Geo. Wyatt, East Lynne.
Jensen, N. N., Florissant.
Lionberger, J. R., Boonville.
Matthews, F. H., Liberty.
Musson, Edwin H., Rockingham.
Myer, Max W., Columbia.
Parrish, J. C., Vandalia.
Shy, Milton P., Knob Noster.
Smith, Charles W., Keota.
Smith, Ira, Austin.
Winchester, Albert N., Joplin.

NEBRASKA.
Creighton, E. A., Red Cloud.
Curtis, W. L., South Omaha.
Dandy, George B., Omaha.
Dillon, J. H., Auburn.
Faulk, F. W., South Omaha.
Flynn, P. J., O'Neill.
Haslam, George J., Fremont.
Horton, C. J., Grand Island.
Johnson, John F., Fullerton.
Johnson, Frank W., Fullerton.
Judkins, D. M., Fullerton.
Mason, Rufus D., Omaha.
Morsman, C. F., Strong.
Overgaard, Andrew P., Fremont.
Ruge, E. C., Springfield.
Schindel, R. E., South Omaha.
Shaw, L. M., Osceola.

NEW HAMPSHIRE.
Dearborn, S. S., Nashua.
Grafton, F. W., Concord.
Guillet, Noel E., Manchester.
Hoitt, George B., Manchester.
Murray, John T., Manchester.
Shea, Augustus W., Nashua.

NEW JERSEY.
Bennett, R. S., Asbury Park.
Franklin, G. H., Hightstown.
Grim, F. S., Baptisttown.
Lewis, Alfred A., Morristown.
Smith, John F., Salem.
Sharp, Ezra B., Camden.
Voelbel, Benjamin H., Vailsburgh.
Warden, Albert H., Weehawken.

NEW MEXICO.
Lane, Samuel M., Silver City.

NEW YORK.
Allen, S. B., New York City.
Leale, Medwin, New York City.
Woodend, Wm. E., New York City.
Baker, Eugene, Ithaca.
Jones, C. S., Buffalo.
Soch, A. F., Fredonia.
Swetland, B. S., Brocton.
Vidal, J. E., Stapleton.

NORTH DAKOTA.
Saylor, H. L., Cogswell.

OHIO.
Cozad, H. I., Akron.
Pitzele, W. A., South Lorain.
Zinninger, G. F., Canton.

OKLAHOMA.
Palmer, T. D., Ingersoll.

PENNSYLVANIA.
Babcock, W. W., Philadelphia.
Davisson, A. H., Philadelphia.
Kremer, Walter H., Philadelphia.
Metheny, D. G., Philadelphia.
Newmayer, S. W., Philadelphia.
Silver, David, Philadelphia.
Wetherill, H. E., Philadelphia.
Bartilson, B. M., Braddock.
Cahall, W. C., Germantown.
Donaldson, L. DeH., Canonsburg.
Gardner, C. B., Johnstown.
Miller, C. L., Lebanon.
Wolfe, Mary M., Norristown.

RHODE ISLAND.
Flanagan, W. F., Providence.
Packard, Mary S., Providence.

SOUTH DAKOTA.
Squire, H. A., Spearfish.

TENNESSEE.
Bennett, B. T., Trenton.
Hall, S. B., Clinton.

TEXAS.
Calhoun, B. F., Beaumont.
Ball, W. P., Cleburne.
Gage, S. C., Ennis.
Lemert, R. H., Brenham.
Moore, H. L., Van Alstyne.
Nicks, J. M., Stone City.

WASHINGTON.
Mead, C. A., Everett.
Neville, E. C., Seattle.

WEST VIRGINIA.
Camden, Rolla, Parkersburg.
Keever, L. F., Parkersburg.
McMillan, Wm. A., Charleston.
Ogden, C. R., Clarksburg.
Wise, S. D. H., Parkersburg.

WISCONSIN.
Meachem, J. G., Racine.
Nelson, S. B., Oshkosh.
Jobse, P. H., Milwaukee.
Akerley, A. W. K., Milwaukee.
Rheingans, G. H., South Germantown.
Lehnkering, C. F., Darlington.

FRANCE.
Spaulding, J. H., Paris.

Societies.

COMING MEETINGS.

Tri-State Medical Society of Alabama, Georgia and Tennessee, Oct. 13-15.

Vermont State Medical Society, Bellows Falls, Oct. 15-16.

New York State Medical Association, New York City, Oct. 19-22.

Congress of State and Provincial Boards of Health of North America, Baltimore, Oct. 23-24.

American Public Health Association, Washington, D. C., Oct. 26-30.

Hawaiian Territorial Medical Society, Honolulu, Nov. 7.

Oklahoma Territory Medical Association, Oklahoma City, Nov. 11

Wayne County (Ind.) Medical Society.—At its regular session in Richmond, September 3, the society adopted a new constitution by an almost unanimous vote.

Vermont State Medical Society.—The nintieth annual meeting will be held at Bellows Falls, October 15 and 16, under the presidency of Dr. Edmund M. Pond, Rutland.

Crawford County (Iowa) Medical Society.—Physicians of Crawford County met at Denison, September 11, and organized a county medical society, with Dr. George S. Waterhouse, Charter Oak, president, and Dr. Andrew Randall, secretary.

Washburn-Sawyer-Burnett County (Wis.) Medical Society.—The first annual meeting was held at Spooner, September 8. Dr. John B. Trowbridge, Hayward, was elected president; Dr. Joseph P. Cox, Spooner, vice-president, and Dr. E. Rudolph Herring, Shell Lake, secretary and treasurer.

Chicago Medical Society (Southern District).—At the annual meeting of this branch of the Chicago Medical Society, September 30, Dr. Edward B. Hutchinson was elected president; Dr. O. Paul Chester, vice-president; Dr. Winfield S. Harpole, secretary, and Dr. Charles P. Pinckard, treasurer.

Northern California and Southern Oregon Medical Association.—Physicians met at Cedarville, Cal., August 28, and organized this association, with the following officers: Dr. Herbert T. Risdon, Alturas, Cal., president; Dr. R. E. Lee Steiner, Lakeview, Ore., vice-president; Dr. Hilderbrand, Cedarville, Cal., secretary, and Dr. Alexander Gibson, Alturas, Cal., treasurer.

Bi-Parish (Natchitoches and Red River, La.) Medical Society.—This society was organized at Coushatta, September 15, and the following officers elected: Dr. Clarence E. Edgerton, Coushatta, president; Drs. Samuel H. Scruggs, Cloutierville, and W. F. Sibley, Robeline, vice-presidents; Dr. Hendricks, East Point, secretary, and Dr. James McGoldrick, Coushatta, treasurer.

Cole County (Mo.) Medical Society.—This society was organized at Jefferson City, September 17, with 17 members, with the following officers: Dr. Robert E. Young, president; Dr. Jefferson L. Thorpe, vice-president; Dr. Gustave Ettmueller, secretary; Dr. William A. Clark, treasurer, and Dr. Charles P. Hough, delegate to the Medical Association of the State of Missouri, all of Jefferson City.

Jasper-Newton County (Texas) Medical Society.—Physicians of Jasper and Newton counties recently organized a medical society with the following officers: Dr. Hardy R. Hancock, Jasper, president; Dr. Jefferson D. Yates, Kirbyville, vice-

president; Dr. Thomas E. Stone, Jasper, secretary and treasurer, and Drs B. F. Yates, Jefferson D. Yates, Jasper, and G. P. Sutton, Burkeville, censors.

Brunswick County (N. C.) Medical Society.—Dr. Frank H. Russell, Wilmington, councilor for the Third District, organized a county medical society at Southport, September 18, on the plan recommended by the American Medical Association. The following officers were elected: President Dr. Erastus G. Goodman; vice-president, Dr. Walter G. Curtis, Southport, and Dr. J. A. Dosher, Southport, secretary and treasurer.

Putnam County (Ohio) Medical Society.—The physicians of the county met recently at Ottawa and organized a county medical society with the following officers: Dr. John C. McClung, Leipsic, president; Dr. C. F. Douglas, Kalida, vice-president; Dr. Wiley D. Hickey, Leipsic, secretary; Dr. Warren F. Reed, Ottawa, treasurer, and Drs. Charles E. Beardsley, Ottawa, Harry A. Lewis, Continental, and Alva L. Paul, Ottawa, censors.

Wright County (Iowa) Medical Society.—Dr. Charles H. Churchill, Fort Dodge, councilor for the Tenth District, met the physicians of the county at Eagle Grove, September 11, and assisted in the organization of a county medical society. Dr. Joseph H. Sams, Marion, was elected president; Dr. James W. Garth, Clarion, vice-president; Dr. E. D. Thompson, Eagle Grove, secretary and treasurer, and Dr. W. C. McGrath, Eagle Grove, censor.

Sioux County (Iowa) Medical Society.—Dr. Edward E. Dorr, Des Moines, councilor for the Seventh District, met fifteen physicians of the county at Alton, September 10, and organized a county medical society on the plan recommended by the American Medical Association. Dr. Albert De Bey, Orange City, was elected president; Dr. Ferdinand J. Smith, Alton, vice-president, and Dr. C. S. McCarty, Hawarden, secretary and treasurer.

Shelby County (Mo.) Medical Society.—Members of the old county society recently reorganized the society and elected the following officers: Dr. William Carson, Shelbyville, president; Dr. J. D. Smith, Shelbina, vice-president; Dr. L. W. Dallas, Hunnewell, secretary and treasurer; Drs. Frank K. Roy, Hagers Grove, Adolphus G. Wood, Lentner, and W. W. Owen, Oakdale, censors, and Dr. William Carson, delegate to the Medical Association of the State of Missouri.

Carroll County (Iowa) Medical Society.—The physicians of the county met with Dr. Charles H. Churchill of Fort Dodge, councilor for the Tenth District, at Carroll, September 15, and organized a county medical society with the following officers: Dr. J. Jordan Deshler, Glidden, president; Dr. Albert S. Gockley, Carroll, vice-president; Dr. Alois Kessler, Carroll, secretary-treasurer, and Drs. Robert R. Williams, Manning, Johan B. H. Feenstra, Arcadia, and Bernard C. Kelley, Carroll, censors.

Juneau County (Wis.) Medical Society.—At a meeting of the physicians of the county held in Elroy, September 10, a medical society was organized with the following officers: Dr. John B. Edwards, Mauston, president; Dr. Robert W. Hoyt, New Lisbon, vice-president; Dr. Arthur T. Gregory, Elroy, secretary and treasurer; Dr. Eugene H. Townsend, New Lisbon, delegate to the Wisconsin State Medical Society, and Drs. Charles S. Smith, Elroy, James E. Smith, Mauston, and Charles H. Golden, Wonewoc, censors.

Tri-Parish (La.) Medical Society (Claiborne, Webster and Bienville).—This society met at Arcadia, September 17. Drs. Francis M. Thornhill, Arcadia, James C. Willis, Homer, and Joseph E. Knighton, Homer, were appointed a committee to revise the constitution and by-laws so as to conform to those of the state society. The report of this committee and the question of applying to the state society for a charter will be discussed at the next regular meeting, which will be held at Homer on the second Thursday in January, 1904.

Jefferson County (Wis.) Medical Society.—About 20 physicians of the county met at Jefferson, September 8, and organized a county medical society, adopting the constitution and by-laws recommended by the American Medical Association. The following temporary officers were elected pending the granting of a charter: Dr. William W. Reed, Jefferson, president; Dr. C. E. Lauder, Johnson Creek, secretary and treasurer, and Drs. Carl R. Feld, Watertown, William A. Engsberg, Lake Mills, and Urban P. Stair, Fort Atkinson, censors.

Organization in Louisiana.—Dr. J. M. Barrier, Delhi, president of the Louisiana State Medical Society, has begun a series of tours through the principal unorganized parishes of the state in the interest of medical organization. The physicians of these parishes are being circularized in advance The first organization meeting of this series was held at Winsboro, Franklin Parish, September 24, when the Franklin Parish Medical Society was organized. There are now about 20 out of a total of 59 parishes, and applications for charters are coming in briskly.

Newaygo County (Mich.) Medical Society.—Dr. Bartlett H. McMullen, Cadillac, councilor for the Ninth District, met the physicians of the county at Newaygo, September 10, and organized a county medical society to be in affiliation with the state and national organizations. The following officers were elected: Dr. Nicholas De Haas, Fremont, president; Dr. William H. Barnum, Fremont, vice-president; Dr. F. Holmes Brown, Newaygo, secretary; Dr. Charles Whitehead, Newaygo, treasurer, and Drs. Fred Yonkers, Woodville, Morey L. Teeple, Grove, and Drummond Grant, censors.

Montgomery County (Texas) Medical Society.—Dr. John T. Moore, Galveston, councilor for the Ninth (South Texas) District, met the physicians of the county at Conroe, September 14, and organized a county medical society on the plan recommended by the American Medical Association, with an initial membership of 12 and the following officers: Dr. William P. Powell, Willis, president; Dr. Henry W. Waters, Montgomery, vice-president; Dr. Juriah F. Collier, Conroe, secretary and treasurer, and Drs. R. Walter Smith, Clinesburg, George W. Stevens, Willis, and William N. Hooper, Conroe, censors.

Dane County (Wis.) Medical Society.—Dane County medical men met in the senate chamber, Madison, September 17, and organized a county medical society with the following officers: President, Dr. Cornelius A. Harper, Madison; vice-president, Dr. William F. Pinkerton, Mazomanie; secretary and treasurer, Dr. Reginald H. Jackson, Madison; censors, Drs. J. C. Cutler, Verona, Charles S. Sheldon, Madison, and Daniel B. Collins, Madison. A committee composed of Drs. Charles S. Sheldon, Theodore W. Evans and Mila B. Sharpe, all of Madison, was appointed to consider the adoption of the constitution and by-laws recommended by the American Medical Association.

South Dakota (Mitchell District) Medical Society.—The physicians of the Mitchell District, comprising Douglas, Hanson, West Hutchinson, West McCook, West Turner, South Sanborn, Jerauld, Buffalo, Aurora, Brule, Lyman and Davison counties, met, September 24, at Mitchell, for the purpose of reorganizing along the lines suggested by the American Medical Association. Sixteen members were present and applications had been received from thirty-seven physicians within the district. Officers were elected as follows: President, Dr. John W. C. White, Plankinton; vice-president, Dr. Bert Menser, Bridgwater; secretary, Dr. E. Frank Reamer, Mitchell; treasurer, Dr. Charles A. Bower, Mitchell, and censors, Drs. George A. Clousen, Bridgewater, Orville D. Pharon, Emery, and Roscoe H. Goodrich, Chamberlain. The next meeting will be held at Chamberlain in December.

Medical and Chirurgical Faculty of Maryland.—At the semi-annual meeting of the Medical and Chirurgical Faculty of Maryland, held at Blue Mountain House, September 24 and 25, the president presented some interesting statistics regarding the public medical libraries of Baltimore. Dr. Charles Wardell Stiles, Boston, read a paper on the dwarf tapeworm, *Hymenolepsis nana*, a new species infecting man, of which about 100 cases have been found in this country. The symptoms are similar to those in the other forms, and the only efficient remedy discovered is the male fern. An eloquent address was made by Dr. J. N. McCormack, Bowling Green, national organizer of the American Medical Association, on the advantages of organization of the profession, and a committee of nine was appointed to report the necessary changes in the constitution. Dr. D. W. Cathell, Baltimore, read a paper in which he praised the wisdom of the change from the code of ethics made at New Orleans, and predicted that the homeopaths would become merged in the regular profession by it, to the great advantage of the latter. Dr. Guy L. Hunner, Baltimore, reported 35 cases of tuberculosis of the urinary system in women, showing, contrary to the usual opinion, that it is more frequent in the upper part of the tract (kidney and ureter) than in the lower (bladder). Diagnosis is often obscure. The results of surgical treatment are very encouraging. Dr. J. McPherson Scott, Hagerstown, read a paper on "Needed Amendments in the Medical Practice Act," and a committee of eleven was appointed to report on the subject at a special meeting to be held at Baltimore, November 15.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

Sixteenth Annual Meeting, held in Chicago, Sept. 22-24, 1903.

(*Continued from page 872.*)

Acute Perforated Gastric Ulcer.

DR. H. HOWITT, Guelph, Ont., presented a paper on this subject. Acute gastric ulcer perforation, as understood by him, refers to those cases in which Nature fails to prevent the escape of gas, liquid or other contents of the stomach by adhesion of the part to adjacent structures. He believes that the diagnosis should be made without difficulty when the perforation occurs in a young, anemic girl, whose previous history indicates the presence of an ulcer. Diagnosis should not be difficult in the majority of the other cases, for there is generally a history of gastric distress after meals, and frequently other symptoms to indicate the trouble. Sudden intense pain in the epigastrium, pronounced shock, rigidity of the abdominal wall and the thoracic character of the respiratory movements aid in arriving at a correct conclusion; and, if in addition to these the initial pain radiates in a certain direction, and the position of greatest suffering changes and gradually takes a downward course in the abdomen, the diagnosis may be made without delay. In the rare instances of rupture of the gall bladder or perforation of the duodenum in which the symptoms closely resemble those of gastric perforation, the indications for prompt surgical treatment are practically the same. In perforation of the anterior wall to the left of the median line, the material, and consequently the pain, follows a course along the inner side of the descending colon. In all other situations they follow along the descending colon toward the pelvis.

Morphia before a diagnosis has been made often prevents timely recognition and prompt action. Until the general practitioner becomes more familiar with the true import of the initial symptoms successful operations will not be common.

Symptoms indicate the position of the ulcer in the stomach definitely enough for all practical requirements. Before perforation takes place, when the ulcer approaches the peritoneal coat, a local sensitive area of peritonitis is produced, and it is very sensitive to pressure or other form of irritation. Hence the posture of the patient is that which avoids pressure and keeps the contents of the stomach away from the ulcer. For instance, when the ulcer is on the anterior wall, the patient is more comfortable when lying on the back, and so on. When it is on the anterior wall, point pressure of a superficial character may, by causing severe pain, indicate the exact position. The pain, when severe, tends to radiate in certain directions, according to the position of the ulcer. If near the pylorus and on the anterior wall, to the right, or to the right and downward. On other parts of the anterior wall, to the left and to the left and upward to shoulder. On posterior wall, to back immediately behind its situation and to right or left, according to whether it is right or left of spinal column, and upward to interscapular space. A large incision, collapse of the distending coils of intestines by temporary enterotomy and evisceration render the work easy and more expeditious, and with less damage to the delicate parts than is possible by any other method. When the perforation is large, drains are used in each flank, and in the pelvis, not through a large incision, but through separate stabs.

Beside a brief synopsis of each of his former operations already reported, the paper contains a report of his fourth case, in which the perforation was on the anterior wall. It was closed with fine silk suture. His method of sight inspection and flushing of all parts of the abdomen and pelvis with a large forcible stream and drainage was carried out. The patient recovered and is well to-day.

DISCUSSION.

DR. C. H. MAYO, Rochester, Minn., said that he and his brother had had several cases of perforating gastric ulcer of the type described. Their experience had been that there was about an even number of perforations in the pyloric region of the stomach; also in the first portion of the duodenum, and that the symptoms and results were about the same in either position. The character of the ulcer was about the same. In the stomach perforations, as a rule, the chronic irritation had been of such a nature that it was almost impossible to close the perforation.

DR. JOHN B. MURPHY said the proper time to operate on perforating gastric ulcer was before the peritoneum had been irreparably injured. This may not be the first day. Many times the stomach is not full when perforation occurs. Furthermore, the stomach contents are less septic and less irritating than those of any other portion of the alimentary canal, therefore the time may be longer in perforating gastric ulcer than in typhoid perforation.

Should the Uterus and Ovaries Be Removed in Operating for Double Pyosalpinx?

DR. C. C. FREDERICK, Buffalo, N. Y., read a paper on this subject. He first briefly reviewed the history of operative procedures. After an experience of about fifteen years with the various surgical procedures gynecologists are in a position to decide accurately the amount of pain, discomfort and illness due to disease of the various anatomic parts of the woman's sexual apparatus. It is not necessary to sacrifice all of these organs when they are not all hopelessly diseased. The duty of the gynecologist is to afford his patient the greatest possible relief from her symptoms with the least mutilation, and the preservation of every organ possible to enhance the most perfect performance of all bodily functions. As much of the healthy ovarian tissue as possible should be left if it be only the eighth part of an ovary. If the condition is known to be tubercular, the uterus should certainly be removed. But even if both tubes and uterus are taken out all the ovarian tissue possible should be saved. The uterus should not be removed if it can be retained.

DISCUSSION.

This paper was discussed by Drs. Robert T. Morris, Rufus B. Hall, Walter B. Dorsett, Miles F. Porter, Byron Robinson, W. D. Haggard, Albert Goldspohn, E. C. Dudley, J. H. Carstens, Frederick Blume, John B. Murphy and Charles L. Bonifield, all of whom favored the conservation of as much ovarian tissue as possible in operating for pyosalpinx.

The Indications and Technic of Vaginal Drainage for Suppuration in the Pelvis.

DR. ALBERT GOLDSPOHN, Chicago, discussed the chief routes by which infection enters the female pelvis and described the type of pathologic changes resulting from each route. While pelvic cellulitis is rare and of little significance in non-puerperal infections, via the tubes, it is the leading or primary anatomic change in puerperal infections, via the lymphatics. When vaginal evacuation of the pus in pelvic suppuration needs to be followed by a more radical secondary operation, in many cases it enables the inflammation in the associated uterus or tubes, or ovaries, to subside during the interval, so that they need not be removed, as would have been deemed necessary if a radical operation had been performed in the first instance or during the acute stage. Vaginal drainage helps to save life in cases that have become too feeble for a radical procedure to be applied at once. Preliminary drainage improves their condition so that they can stand a radical operation later, with no higher rate of mortality than obtains after abdominal section in other cases that are not so reduced. This operation should never be a puncture with a trocar, knife or scissors, but always a transverse incision into the posterior cul-de-sac, preferably with the thermocautery. From this entrance, as a vestibule, laterally located purulent accumulations, if not yet opened, are best attacked by a finger assisted by forceps. Only a small proportion of the cases so treated by him have required another operation, except when the infection was from the vermiform appendix.

DISCUSSION.

DR. EDWARD J. ILL said he began to use vaginal drainage fifteen years ago, and while he was not opposed to this peculiar method, long experience had taught him there were better methods. Cases of cellulitis should be opened from below, if

possible, and the sooner the better. But the drainage of tubal and ovarian abscesses is different and is by no means curative.

Dr. D. Tod Gilliam said that unless cellulitis existed he did not think there was justification for vaginal drainage.

Dr. H. W. Longyear, Detroit, said that to get rid of pus in the cellular tissue there was no question about the propriety of vaginal drainage. Further, if a woman is *in extremis* from long-continued suppuration and prolonged fever, and can not stand a radical operation, the pus should be drained at first through the vagina, but this measure should not take the place of a radical operation later.

Dr. J. Henry Carstens, Detroit, agreed with Dr. Longyear.

(*To be continued.*)

PENNSYLVANIA STATE MEDICAL SOCIETY.

Fifty-third Annual Meeting, held at York, Sept. 22 to 24, 1903.

The meeting was called to order by the president, Dr. William M. Welch, Philadelphia, and addresses of welcome were delivered by Mayor M. B. Gibson of York and Dr. N. C. Wallace, president of the York County Medical Society.

Professional Ethics.

Dr. J. N. McCormack, Bowling Green, Ky., national organizer of the American Medical Association, delivered an address on this subject, in which he lamented the animus so frequently shown by physicians toward other practitioners. He detailed the plan of organization recommended by the American Medical Association and made a plea for clean physicians, physically, morally and mentally.

Misleading Text-Books.

The committee appointed to examine school text-books on physiology and hygiene reported as follows:

The school text-books on physiology and hygiene contain many errors and much misleading information and very serious omissions. The books, as a whole, can not be recommended, although some few are good. We are sorry to be compelled to say that the books supervised by the Woman's Christian Temperance Union committee are the most reprehensible.

If the object of the woman's committee is the teaching of prohibition, then let them openly and honorably designate their books by truthful titles, and not resort to the contemptible method of using a scientific term to cloak an ethical principle.

It is evident to any fair-minded observer that while a grain of strychnia is a poison, the one-hundredth part thereof is not. It is absurd to teach that cider, beer, wine, etc., in any dose is a poison, whereas, we all know that a tumbler of pure alcohol is. This is but the morbid expression of fanatics, who are guided by zeal rather than by wisdom.

The committee recommends that a committee be appointed to consider the advisability of state supervision of the school text-books pertaining to anatomy, physiology, hygiene and all allied subjects.

The Orations.

The address in surgery was delivered by Dr. William L. Estes, South Bethlehem, who urged the necessity for keen discrimination between operable and inoperable cases.

The address in obstetrics was delivered by Dr. John G. Clark, Philadelphia.

The address in hygiene and state medicine was delivered by Dr. Seneca Egbert, Philadelphia, in which he stated that the population of the districts in the United States in which a system of mortality registration had been organized had increased from 19,659,440 in 1890 to 28,807,269 in 1900, with a decrease in the death rate in the registration areas from 19.6 to 17.8 per 1,000. He forcibly demonstrated the value of improved sanitary regulations, such as purification of the water supply, supervision of milk and food, quarantine regulations, etc., and dwelt at considerable length on the value of preventive measures in contagious and infectious diseases.

The address in neurology was delivered by Dr. Charles B. Mayberry, Retreat, Pa., in which he considered the means of securing better results in the treatment of the insane, which he believed would result from the carrying out of the following suggestions: 1. More extensive instruction in psychiatry, both didactic and clinical. 2. The construction of small psychopathic hospitals for the separate treatment of the acute curable insane. 3. The organization of a system of out-patient departments by which the discharged patients may be kept under observation for one year after leaving the institution. 4. The creation of a central laboratory for the investigation of the pathologic conditions underlying mental disease.

The address in ophthalmology was delivered by Dr. E. B. Heckel, Pittsburg. He said that the drugs which were used twenty-five years ago, e. g., mercury, nitrate of silver and atropin, stand out prominently in optical therapeutics to-day, the advance consisting in the new and improved methods of using them. The treatment of glaucoma, he stated, had made but little progress and iridectomy was still to be preferred to sympathectomy, massage being a valuable adjunct, and cytology, while it has been used but a short time, gives indications of good results in sympathetic ophthalmia.

The address in medicine was delivered by Dr. H. M. Neale, Upper Lehigh, who believes the most important therapeutic factors in the treatment of pulmonary tuberculosis are fresh air, sunlight, rest and cleanliness in conjunction with proper food and careful medical supervision. He believes that cures can be effected as well at home as in the higher altitudes. He describes in detail the method of treatment at the White Haven Sanitarium, one of the important factors being large quantities of milk and eggs. In addition, internal doses of creosote and iodin compounds, and inunctions of olive oil, wintergreen oil and other oils are administered.

Social Features.

At the Tuesday evening session the president's annual address was delivered by Dr. William M. Welch, Philadelphia, after which the society was given a reception at the Country Club by the York County Medical Society.

Wednesday afternoon the society visited the York Water Plant, where an address was delivered by Mr. George W. Fuller, New York, on the subject of "Water Filtration," followed by a reception given by the York Water Company at the Country Club, and in the evening a theater party given by the York County Medical Society.

Thursday evening the members were given an automobile excursion to the Penn Park musical entertainment, and on Friday morning an excursion to the Gettysburg battlefield.

The New Officers.

The following officers were elected: President, Dr. William B. Ulrich, Chester; vice-presidents, Drs. Isaac C. Gable, York; Philip Y. Eisenberg, Norristown; Fred W. Coover, Harrisburg; William A. Marsh, Mt. Pleasant; secretary, Dr. Cyrus Lee Stevens, Athens; assistant secretary, Dr. Theodore B. Appel, Lancaster; treasurer, Dr. George W. Wagoner, Johnstown; board of trustees, term ending 1906, Drs. Richard Armstrong, Lock Haven; Isaac C. Gable, York, and William S. Ross, Altoona; delegates to the American Medical Association, Drs. George W. Guthrie, Wilkesbarre; William S. Foster, Pittsburg; Alex. R. Craig, Columbia; Webster B. Lowman, Johnstown; alternates, Drs. Walter Lathrop, Hazleton; John B. Donaldson, Canonsburg; William M. Guilford, Lebanon; James N. Richards, Fallsington; Samuel Wolfe, Philadelphia; James H. Montgomery, Erie; Erasmus V. Swing, Chester, and William M. Beach, Pittsburg.

The place of the next annual meeting was fixed at Pittsburg, and Dr. W. S. Foster was appointed chairman of the committee on arrangements.

The Importance and Necessity of Industrial Hospitals.

Dr. W. B. Lowman, Johnstown, urged in this paper the importance of the establishment of hospitals in conjunction with all the large industrial institutions, as a humane measure and also as a sound business investment, as employes thus cared for would be less likely to institute legal proceedings for slight injuries and in perhaps hopeless cases.

The Medical Expert Witness.

Dr. G. W. Wagoner, Johnstown, in this paper, argued that experts selected by the court would give better satisfaction than witnesses paid by parties to testify for the benefit of their side of the case.

State Medical Board Examinations.

Dr. A. O. Kelly, Philadelphia, laid especial stress on the importance of the examiner being a practical physician familiar

with the progress of medicine. He believed that the questions should be limited to the practical and applied aspects of the subject, and should not be purely academical. He recognized the value of a general knowledge of the general principles of medicine and in no sense recommended the abolition of didactic lectures. He believed practical tests in addition to the written examinations, or the submission to the student of a number of case histories for study, discussion and suggestion would be a valuable augmentation to the examination. When a candidate is asked to give the treatment for a certain condition, he should be required to set forth his reasons therefor.

(To be continued.)

AMERICAN ACADEMY OF RAILWAY SURGEONS.

Tenth Annual Meeting, held in Chicago, Oct. 1 and 2, 1903.

This organization met under the presidency of Dr. L. Sexton, New Orleans. The academy has about 140 members and is an energetic scientific organization.

Conservatism in the Treatment of Crushing Injuries.

DR. JERE L. CROOK, Jackson, Tenn., reported three cases, showing how aseptic and antiseptic technic have reversed conditions, substituting salvation for sacrifice, and limbs of living flesh and bone for those of wood, cork and leather.

DRS. R. HARVEY REED, EVAN O'NEILL KANE, A. H. BRUMBAUGH, H. M. DEAN, F. A. BUTLER and O. B. QUINN talked along the line of the conservation of limbs and of as much tissue as possible.

Injuries of the Large Joints.

DR. I. V. CROSBY, Stuart, Iowa, reported two cases to emphasize the necessity of carrying out the strictest antiseptic precautions from start to finish. By so doing the function in many severely injured and infected joints can be saved even in the rural districts.

Physical Examination of Railroad Employes.

DR. H. B. JENNINGS, Council Bluffs, Iowa, urged the responsibility of the surgeon making these examinations for the company, and a lengthy discussion was elicited, during which different methods of examining railroad employes were brought out.

The Value of an Injury.

This was the title of the president's address, delivered by Dr. L. Sexton, New Orleans. He cited cases to illustrate verdicts for various elements of injury. The railway surgeon can materially lessen the loss or damage incident to injuries by careful, skilful and painstaking attention to each case.

Ocular and Aural Examination of Railroad Employes.

DR. FRANK ALLPORT, Chicago, submitted a report and the resolutions on this subject recommended by the American Medical Association, which were referred to a committee and, on its favorable report, were subsequently adopted.

Other papers read were as follows: "Rheumatism in Connection with Minor Injuries of the Back," on how to differentiate the conditions, by Dr. A. Wilson, Alva, Okla.; "Traumatic Influence in the Production of Movable Kidney," an exhaustive treatise, by Dr. M. L. Harris, Chicago; "Radical Cure of Hernia," by Dr. E. W. Andrews, Chicago, and "Fracture of the Humerus," by Dr. F. A. Butler, Harvard, Neb. The latter described a recovery brought about by means of massage, electricity and constitutional treatment after one and a half years of post-fractural paralysis.

In a symposium on head injuries, papers were presented by Drs. C. H. Mayo, John E. Owens, Haldor Sneve, J. F. Pritchard, W. U. Cole, A. L. Wright and Ira B. Bartle.

Diet in Its Relation to Surgical Cases.

DR. A. B. BRUMBAUGH, Huntington, Pa., said that a healthful diet in general, to aid and enable men and women to attain to their highest capacity mentally and physically, should be simply nutritious, and consist of such articles as were readily, quickly and perfectly digested. It should be mainly of fruits, vegetables simply cooked and the tallow-bearing meats. All excess and doubtful and harmful articles should be discarded, and the diet in surgical cases should conform strictly to the simple type of healthy living.

The secretary presented a letter from Dr. J. N. McCormack relative to the practicability of the academy becoming affiliated with or a branch of the American Medical Association. The communication was referred to a committee, which subsequently reported that the time was not ripe for the adoption of the plan proposed, and, on motion, the action of the committee was concurred in by the academy.

Officers.

The following were elected officers: President, Dr. Samuel C. Plummer, Chicago; vice-presidents, Drs. A. L. Wright, Carroll, Iowa, and W. U. Cole, Columbus, Ohio; secretary-treasurer, Dr. Thomas B. Lacey, Council Bluffs, Iowa; assistant secretary, Dr. H. B. Jennings, Councils Bluffs, Iowa; editor, Dr. D. S. Fairchild, Des Moines, Iowa. Place of meeting, Chicago; time to be decided by the executive committee.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Leg Ulcers.

The treatment of ulcers of the leg, according to Fischkin in *Med. Standard*, consists, 1, in the removal of conditions which may induce or favor necrosis; 2, the production of conditions which will favor the healing process as much as possible. The general outline of treatment consists, according to the author, in:

1. Aseptic cleansing of the leg.
2. Elevation of the leg and application of bandages to remove the venous stasis.
3. The application of remedial agents to induce healthy granulations.
4. The application of such remedies as will favor normal cornification.
5. The application of such remedies to surrounding tissues with a view to healing associated conditions, such as eczema, which may be caused by venous stasis.

In carrying out the first indication the leg should be bathed with soap and water unless great eczema is present, in which case alcohol dressings may be used, or a boric acid or 5 per cent. liquor alum. acetatis or a solution of hydrogen peroxid may be substituted.

These indolent, anemic ulcers must be stimulated in order to promote the formation of healthy granulations. This may be done by syringing the ulcer with hot water or a 1 to 2,000 potassium permanganate solution. This syringing should be followed by an iodoform dressing or the base of the ulcer painted with pure tincture of iodin or the application of unguentum hydrarg. rubrum, balsam of Peru or other stimulating remedies.

If the granulations project too high, caustics and astringents must be applied, such as argenti nitras, 10 per cent. Gangrenous ulcers are to be first cleansed with a hot potassium permanganate solution, followed by the application of a few drops of the following combination:

℞. Chloralis hydratis	℥iiss	10
Camphoræ	℥iss	6
Glycerini	℥iss	45

M. Sig.: Apply locally.

An iodoform dressing is then applied.

Epithelization and cornification may be encouraged by carefully dressing the ulcer and producing drainage in order to prevent the accumulation of the secretions; or the base of the ulcer should be painted with a 2 to 4 per cent. solution of silver nitrate followed by bismuth subnitrate dermatol or ichthoform dressing. The ulcer is then covered with a gutta-percha dressing to aid drainage and to prevent the adhesions of dressings. The surrounding eczemas must be treated. If

the eruption is vesicular or in the stage of serous discharge pastes must not be employed, but in their stead a dry powder as follows:

℞.	Zinci oxidi Talci venet. Amyli, āā 3iiss		10
	Acidi borici .....gr. xlv		3

M. Sig.: Apply locally.

In the dry form of eczema some tar preparation is better, as follows:

℞.	Olei cadini Olei rusci Spiritus Spts. etheris, āā.....3iiss		10

M. Sig.: Apply locally.

The author also recommends Unna's paste prepared as follows:

℞.	Zinci oxidi 3x		40
	Gelatin 3v		20
	Glycerini .....℥i		30
	Aq. destil. .....℥iiss		75

M. Sig.: Apply locally with a soft brush, changing the dressing in 3 to 10 days.

In the ordinary ulcers accompanied by pain the following is recommended as a dressing:

℞.	Tinct. benzoini comp. 3iv		15
	Balsami peru. 3ii		8
	Lanolini 3x		40
	Ext. belladonnæ .....gr. xxx		2

M. Ft. unguentum. Sig.: Apply locally.

As a local application in syphilitic ulcer the author recommends the mercurial plaster; or if the ulcer is not clean bathe with a mercurial bath and dust with calomel. Iodids should be given internally.

Some authors recommend the following combination in the treatment of syphilitic ulcers:

℞.	Hydrarg. chloridi mitis 3i		4
	Ichthoformi 3ss		2
	Petrolati 3viss		26

M. Sig.: Apply locally; or:

℞.	Iodol .....℥i		30

Sig.: Apply freely to the ulcer.

Dysmenorrhea.

The palliative treatment of dysmenorrhea, according to Bjorkman in *Merck's Archives*, is necessarily entrusted to the general practitioner, consequently the treatment is more or less symptomatic, while the radical treatment leading to its cure lies in the province of the specialist. The first step, according to the author, is to gently promote elimination by proper evacuation of the bowels if there is a tendency to constipation. The use of opium or morphin should never be resorted to. Codein and dionin may be used in their stead. He also condemns the use of alcoholics. In well-nourished women cerium oxalate may be given in six-grain doses (.40)) every hour previous to the beginning of the flow and continued until the pain has ceased. Pulsatilla is also recommended, given in 10-minum (.65) doses of the tincture four times a day. This is said to quickly relieve the spasms due to uterine disorders. The following combination is recommended by the author:

℞.	Tinct. pulsatillæ .....℥i		4
	Syr. aurantii .....℥i		30
	Aq. destil. q. s. ad .....℥iv		120

M. Sig.: One teaspoonful four times a day.

In neurotic individuals a combined treatment of bromids and antipyrin is serviceable or the bromids alone given as follows:

℞.	Pot. bromidi 3iiss		10
	Sod. bromidi 3iss		6
	Ammon. bromidi 3i		4
	Syr. aurantii corticis.....℥iiss		75
	Tinct. rhei 3iiss		10
	Aq. destil. q. s. ad.....℥viii		240

M. Sig.: One tablespoonful before meals in one-half a glass of water.

In dysmenorrhea of anemic or spasmodic nature viburnum is of great benefit.

℞.	Ext. viburn, prunifol. flu. .....℥i		30

Sig.: One teaspoonful three times a day; or:

℞.	Chloralis hydratis .....gr. lxxv		5
	Tinct. belladonnæ .....gtts. xxx		2
	Ext. viburn. opul. flu.....℥i		30
	Elix. simplicis q. s. ad.....℥iv		120

M. Sig.: One or two teaspoonfuls in sweetened warm water every hour until relieved.

The author also recommends stypticin as curative if given for long periods. He advises it in doses of grain ¾ to 1½ (.05 to .09) four or five times a day. In smaller doses it may be given beginning four or five days before the usual time for menstruation, giving a full dose the day previous to the usual time for the flow.

It may be given combined as follows:

℞.	Stypticin .....gr. xx	1	30
	Ext. belladonnæ Ext. hyoscyami, āā.....gr. 3¾		25
	Euquinini .....gr. xl	2	65

M. Ft. pil. No. xx. Sig.: One pill three times a day.

Dionin is recommended administered in the form of a suppository combined as follows:

℞.	Dionin .....gr. ss-2/3		03-.04
	Ext. cannabis ind. .....gr. iss		09
	Butyr. cacoa q. s.		

M. Ft. suppos. No. i. Sig.: One such to be inserted into the rectum two or three times a day. [The dose of cannabis indica is rather large.]

The foregoing suppository is valuable in the treatment of dysmenorrhea of young girls, where local treatment can not be properly carried out. The following may be used per vaginum:

℞.	Dionin .....gr. ½		03
	Ichthyol .....gr. iii		20
	Butyr. cacoa q. s.		

M. Ft. suppos. No. i. Sig.: One such to be inserted into the vagina two or three times a day, if necessary, to relieve the pain. Dionin is also recommended by the mouth as a palliative in dysmenorrhea as follows:

℞.	Dionin .....gr. vss		35
	Aq. amygdalæ amar. 3iv	15	

M. Sig.: Fifteen drops two or three times a day; or:

℞.	Dionin .....gr. ss		03
	Salipyrin .....gr. x		65
	Acetanilidi .....gr. ii		12

M. Chartula No. i. Sig.: One such powder three times a day.

[Dionin is ethyl-morphin hydrochlorate. It is a powder, faintly bitter, soluble in about seven parts of water, two parts of alcohol, and twenty parts of syrup. Stypticin is cotarnine hydrochlorate. It is a yellow powder, soluble in water or alcohol. It is recommended as a uterine sedative and as a hemostatic.]

Chronic Pharyngitis.

The following combinations are recommended by *Jour. des Pract.* in the treatment of chronic pharyngitis:

℞.	Sodii boratis 3ii		8
	Tinct. myrrhæ 3i		4
	Infusi cocæ foliæ .....℥viii		240

M Sig.: Use as a gargle every two hours; or:

℞.	Potassii chloratis 3iiss		10
	Infusi rubi fol. .....℥iv		120
	Infusi cochleariæ (couch grass) .....℥ss		15

M. Sig.: To be used as a gargle.

Abortive Treatment of Furuncles.

Reich, in an abstract in *Med. Age*, states that positive results are obtained by the treatment of boils with superheated dry-air. The heat is directly injurious to pathogenic organisms; active hyperemia of the tissues and consequently increased resistance to bacterial invasion is induced. The skin is sterilized and dangers to reinfection rendered less probable. According to the author's statement, in no case where the treat-

ment was begun early did suppuration or tissue necrosis take place. The infiltration of the surrounding tissue disappeared more rapidly than ordinary in abortive cases. Reinfection in the tissue surrounding the boil never occurred. In cases of general infection the tendency to fresh boil formation was greatly diminished. He states that this form of treatment reduces the tension in the infiltrated tissue and relieves the pain as a result.

Medicolegal.

Physician to Determine Necessity for Information.—Section 4659 of the Revised Statutes of Missouri of 1899 provides that a physician or surgeon shall be incompetent to testify concerning any information which he may have acquired from any patient while attending him in a professional character, and which information was necessary to enable him to prescribe for such patient as a physician or do any act for him as a surgeon. The Supreme Court of Missouri, Division No. 2, says, in the case of State vs. Kennedy, that it takes it that the physician or surgeon must, as a general rule, under the statute, determine for himself whether the information acquired by him from his patient is necessary for him to prescribe for such patient, and, in the absence of some showing to the contrary, the presumption must be indulged that the information in question was necessary for that purpose; otherwise, he would not desire it. To rule otherwise would be to usurp the prerogative of a physician learned in his profession, which the court has no inclination or right to do. The court adds that, of course, it does not mean to say that it will not pass on questions which are apparent to the ordinary observer, and to one not learned in the sciences of medicine and surgery, which have nothing whatever to do with the case under consideration, and hold them not privileged.

Representations as to Health and Medical Treatment.—The Supreme Court of Michigan says, in the case of Blumenthal vs. Berkshire Life Insurance Company, that the law is settled that in a representation, contained in an application for insurance, that the assured is in good health, or that he has not been attended by a physician or consulted one professionally, the answer is to be construed as meaning, in the one case, that he has not suffered an illness of a serious nature, tending to undermine the constitution, and that a state of health is freedom from disease or ailment that affects the general soundness or healthiness of the system seriously. And as to representations as to treatment by physicians, the omission to state a treatment by a physician for some temporary indisposition does not avoid the policy. In this case the trial judge charged the jury that it is not the duty of an applicant for insurance to advise the insurance company of every time he consults a physician for some temporary indisposition; but it is his duty to advise them, in answer to that question, every time that he has consulted a physician relative to any serious ailment; and that if they found that the disease with which the insured was suffering when he made his application was such a disease as would affect his general health then it was his duty to have advised the company that he had been attended by a physician. The Supreme Court thinks this was clearly within the rule as above laid down.

Exclusion of Immigrant for Favus of Finger Nails.—The United States Circuit Court for the Southern District of New York says, in re Neuwirth, that on certificate of the proper examining medical officer, the board of special inquiry unanimously voted to exclude the alien immigrant in question in this case as having a loathsome disease, viz., favus of the finger nails. His father presented a sworn petition for a writ of habeas corpus averring that his son was not suffering from a loathsome and dangerous contagious disease, but that his disease was curable and slight, and that he had improved since he arrived, and was almost cured. He also presented the affidavit of a physician to the effect that while the condition of the immigrant's finger nails was not normal, he was doubtful whether he was suffering from favus; that, if he was, a slight operation would work a cure; and that in his opinion favus, in this form, was not a "loathsome" nor a "dangerous contagious" disease. On this record the court thinks that it could hardly be said that it was affirmatively and satisfactorily shown that such person did not belong to one of the excluded classes of immigrants. Moreover, it quotes the provision of Section 10 of the act of Mach 3, 1903, that the decision of the board of special inquiry, based on the certificate of the examining medical officer, shall be final as to the rejection of aliens afflicted with a loathsome or with a dangerous contagious disease, or with any mental or physical disability which would bring such aliens within any of the classes excluded from admission to the United States, etc. It says that under the earlier act it has been repeatedly held that the only jurisdictional fact to be established in these cases was the alienage of the immigrant, and that when that appeared the court would not review the decision of the board. The language of the act of 1903 is somewhat different, but it is not thought that by thus modifying it congress intended to provide that before the decision of the board could be accepted as final it must first be made to appear by independent proof as a jurisdictional fact that the rejected alien was actually afflicted with the specified disease. Such an interpretation would make the tenth section meaningless. Wherefore, the court dismissed the writ of habeas corpus.

Hospital Register Not Admissible in Evidence—Privilege.—The Supreme Court of Minnesota holds, in the case of Price vs. the Standard Life and Accident Insurance Company, that a register of patients, kept at a hospital, naming or pretending to name, the disease with which a patient was said to be suffering, is not admissible in evidence to show and establish the nature of the disease. Here the entries in the register in question were made by the superintendent in charge, who was a female physician, in the usual course of business at the hospital, and showed when the patient entered, when he departed therefrom, and the nature of the disease from which he was said to be suffering. This superintendent produced the register, and testified that the entries concerning the patient were made after the physician in charge had observed the case long enough and knew sufficiently about the patient to state the kind of disease, and were wholly based on information received by her from the doctor. The witness had no personal knowledge of the patient, and had no recollection of the case, apart from the record. Therefore, the court says, the entries amounted to nothing more or less than what the superintendent wrote in the register, what the attending physician told or reported to her concerning the patient's illness. To permit these entries to be introduced in evidence was to disregard in a very noticeable manner the rule forbidding the introduction of hearsay testimony, as well as the spirit of the statute which prohibits the examination of a physician as to certain matters without the consent of his patient. The information communicated by the physician in charge to the superintendent of the hospital was acquired by the former while attending the patient, and was necessary to enable him to prescribe or act for him. The physician would not have been allowed to make any such disclosure, and the statutory restriction on him could not be evaded by introducing in evidence testimony of a third party as to what the doctor said about the case. But the entries did not even rise to the dignity of a repetition of what the doctor said to a third party, for the superintendent remembered nothing, except that she made the entries. This testimony should have been excluded. Again, the court says that, although the statute differs somewhat in the several states, the general proposition is that it seals the lips of the physician, and prevents him from divulging in a court of justice information which he has acquired while in the necessary discharge of his professional duty, but it does not absolutely prohibit the examination of an attending physician as a witness. The well-established rule seems to be that a physician may be called on to testify to the simple fact that he has treated or attended a certain person as his patient, and as to the num-

ber of his visits. This doctrine, looking at the question in a logical way, comes very near trespassing on the statute, but the court finds no cases in opposition, and none was cited by counsel.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

American Medicine, Philadelphia.

September 26.

1 *Typhoid Fever: An Analysis of 717 Cases. John McCrae.
2 *Spotted Fever (Tick Fever) of the Rocky Mountains: A New Disease. John F. Anderson.
3 *Some Biologic Differences Between the Natural and the Artificial Feeding of Infants. David L. Edsall.
4 *Personal Experiences in Operations on Diabetic Patients. Charles P. Noble.
5 *The Value of Eosinophilia in the Diagnosis of Trichinosis, with Report of a Case. Edwin R. Gould.
6 Inguinal Hernia of an Imperfectly Developed Uterus and Appendages. R. Ferguson.
7 The Surgery of To-day. Alex. Hugh Ferguson.

1. **Typhoid Fever.**—Among the notable points in the analysis of 717 cases observed by McCrae at Montreal were the moderate mortality, 9.2 per cent., the large proportion in which the Widal test was positive, that is, 92.77 per cent., the occurrence of rose spots in 65 per cent. of all cases and the predominance of constipation over diarrhea. The large number of cases of perforation—43, of which 23 were operated on, with 6 recoveries—was also a notable point. The treatment followed was largely that of cold bathing, or cold water, or alcohol spongings. The routine administration of the first bath is, as a rule, at 90 or 85, lowering about 10 degrees the second time and the succeeding baths at 70 or 75. The antipyretic treatment consists of phenacetin, alternating with salol. In most cases a purely liquid diet was given, though semi-solids were allowed in some cases. The author says no rule as to diet will apply to all cases, but that any food that reaches the intestines in any other than a perfectly fluid form is bad.

2. **Spotted Fever (Tick Fever) of the Rocky Mountains.**—Anderson gives his observations on spotted fever of the Rocky mountains. The parasite was discovered by Wilson and Chowning, and their work was described in THE JOURNAL, July 19, 1902, p. 131. Anderson suggests the name tick fever on account of the relation of tick to the disease and the preemption of the term "spotted fever" by other affections. He thinks it resembles typhus fever more than any other disease, and without a blood examination and close bedside observation there might be trouble in the diagnosis in cases of typhus fever occurring in a locality where tick fever prevails. In typhus, however, the long period of incubation, history of cases, the eruption and intensely contagious character and the time of its prevalence, not limited to a short time in the spring, would be important diagnostic points. Until this past season the treatment of tick fever has been purely symptomatic, but since the discovery of the parasite the use of quinin in large doses, preferably hypodermically, has been employed in 5 cases, all of which recovered, while 5 cases that did not have this treatment proved fatal. Anderson hopes that the use of quinin will be followed in future treatment of the disease, and would give it in large doses hypodermically every six hours. He advises its early and continuous use.

3. **Infant Feeding.**—Edsall calls attention to certain biologic peculiarities of milk from different animals and their bearing on the artificial feeding of infants, especially the oxidating ferment in many milks, such as cow's milk, and its absence in human milk, and the diastatic ferment found in human milk and not in cow's milk. He thinks the recent biologic investigations emphasize the dangers of sterilization and indicate that the results of pasteurization are not altogether beneficial since they destroy ferments and, therefore, affect important qualities of milk.

4. **Surgery in Diabetes.**—Noble tabulates 7 cases from his own practice where operations were done in diabetics, with the results. He shows that 6 of them made good recoveries; 1 died in diabetic coma. In the cases that recovered, the general progress was not different from those not the subject of glycosuria. In looking up the literature he is able to add 62 more cases, with 52 recoveries. Seventeen died, 1 of the deaths was from erysipelas, 2 from sepsis, 5 were from causes not stated, and 9 from coma. The chief cause of death after operation in diabetes is from coma. This is the one that it is the least possible to guard against. He advises in all cases preliminary treatment by diet and the administration of codeia and strychnin. He would postpone operation if more than 2 per cent. of sugar was present in a total excretion of three pints per day. After operation, morphin, codeia and strychnia have been prescribed, and salt solution freely administered per rectum and by hypodermoclysis, and the diet strictly regulated. Where the indications for operation were marked he has advised it, at the same time pointing out the risk or the possible occurrence of coma. A review of the literature has not altered his opinion as to the wisdom of this course. When a routine examination of the urine as a preliminary measure to operation is followed, operation on patients suffering from unrecognized diabetes can be avoided. Contraindication to operation is strongest in patients suffering markedly from constitutional symptoms of the disease—poor nutrition, wasting, intense thirst and morbid appetite.

5. **Trichinosis.**—Gould points out the value of blood examination in these diseases and the importance of a large percentage of eosinophiles as a diagnostic point.

New York Medical Journal.

September 26.

8 *The Gastric Contents in Gastroptosis. Thomas R. Brown.
9 *Is Registration and Disinfection a Successful Method of Combatting Pulmonary Consumption? Thomas J. Mays.
10 *The Results of Brain Surgery in Epilepsy and Congenital Mental Defect. William P. Spratling.
11 The Necessity of Special Legislation for the Prevention of the Contamination of Our Water Supply as a Preventive of Typhoid Fever. James Mitchell.
12 *The Treatment of Acute Blennorrhea of Adults. James F. McCaw.
13 *Some Obscure Cases of Eye Strain. F. W. Marlow.

8. **Gastric Contents in Gastroptosis.**—From his analysis of the stomach contents in twenty cases, Brown finds that in simple gastroptosis there is a slight diminution in the amount of free hydrochloric acid in the majority of cases; in cases where the dilatation is slight, the free hydrochloric acid is further reduced, although not markedly so, while in those cases associated with marked dilatation free hydrochloric acid is usually entirely absent. These facts would suggest that gastroptosis *per se* leads to a very slight diminution of free hydrochloric acid, and that it is the subsequent dilatation which so often complicates gastroptosis that leads to marked dilatation, the diminution being apparently more marked the greater the associated dilatation.

9. **Tuberculosis.**—Mays analyzes the death records from pneumonia and tuberculosis in a number of cities and claims to find that the combating of tuberculosis by disinfection, registration, etc., seems to increase the pneumonia mortality, and that in a number of the localities where these are practiced there has been an increase in phthisis during the last five years.

10. **Brain Surgery in Epilepsy and Idiocy.**—Spratling's paper is concluded with an analysis of the results of surgery from the literature and his own observations. He thinks the statistics show that if epilepsy is general and of some years' duration we need not look for a cure, though in selected cases operation may ameliorate the symptoms, but most frequently only temporarily. If the epilepsy is unessential, reflex, rudimentary in type, or of short duration, and the operation removes the cause early enough, we may expect the convulsions to cease in many cases, provided the patient is free from the vices of heredity that are beyond the reach of the surgeon. He does not find a single case of congenital mental defect in which a normal mental status was established through surgical intervention. There are many reports of cases benefited by surgery, the degree not being given, making it diffi-

cult to judge of its value. The fact that operations for this purpose have gone into disuse is the strongest argument against their utility. They may have a limited value, but not what was at one time expected.

12. **Acute Blennorrhea of Adults.**—McCaw advises prophylaxis by extreme avoidance of any possible way of infection and the cautioning of every woman with vaginal discharge and every man with gonorrhea as to the dangers to the eyes from such discharges and the importance of thorough cleanliness. He makes the assertion that cocain should never be used in eye diseases, though a few exceptions are admitted. He would prohibit bandaging and poulticing of the eyes. The first thing indicated is the use of cold compresses, except where the conjunctiva looks harsh and is covered with a tenacious grayish exudate, in which case hot applications are preferable. Cold should be kept up regularly day and night from twenty-four to thirty-six hours. During the second stage, where there is free purulent discharge, the important part of the treatment is frequent and thorough cleansing of the eye. He would use here one-half saturated solution of boric acid for this purpose. As soon as free purulent secretion is established and the conjunctiva is in a succulent condition, it should be brushed twice daily with a 2 per cent. silver nitrate solution as long as the free discharge continues. On the first indication of corneal infiltration or ulceration iced compresses should be discontinued and hot applications substituted. He insists on attention to the general vital condition of the patient.

13. **Eye Strain.**—Three cases are reported by Marlow, the consideration of which, he says, indicates the following points:

The most careful investigation and the apparently accurate correction of all the discoverable errors may completely fail to relieve the symptoms; may, in fact, aggravate them, and yet the symptoms may still be due to eye strain. Indeed, the fact that glasses which are apparently correct aggravate the symptoms is, I believe, in most cases evidence that the latter do arise from eye strain, and that a latent error is present, usually an error in the muscle balance. In all the cases described the possibility of the existence of the kind of error which was finally found to be present was fully appreciated from the first. In the second place, I believe that lapse of time is a very important factor in the elucidation of the true nature of these cases. The action of the accommodation in neutralizing refractive errors is so automatic and persistent that all efforts to annul it sometimes fail to be completely effective, even atropin and other powerful cycloplegics failing to bring about a complete relaxation. The natural relaxation due to advancing years often reveals a hitherto latent error. Similarly the instinctive tendency to see single and not double causes the extrinsic muscles to contract so as to maintain a parallelism of the visual lines. This contraction is so constantly maintained that the muscles get into a condition of tonic spasm which is extremely persistent. Just as we have a spasm of the accommodation in cases of hyperopia and astigmatism in the interest of clear vision, so we have a spasm of the extrinsic muscles in the interest of single vision, and the latter is far more difficult to demonstrate than the former. It is surprising what high degrees of error may remain latent year after year and produce a train of symptoms absolutely intractable to treatment until the manifestation and correction of these errors has occurred. I have seen some cases which have inclined me to think that not only is lapse of time the only thing which will reveal the true nature of the ocular conditions, but that old age itself is reached in some cases before the true condition becomes manifest.

Medical Record, New York.

September 26.

14 *Some Aspects of the Old and the New: A Plea for Conservatism in Medicine and Surgery. Beverley Robinson.
15 *Abnormal Frequency of Urination Treated with Epidural Injections. Ferd. C. Valentine and Terry M. Townsend.
16 *Nitrous Oxid in the Production of Surgical Anesthesia. Irving A. Meeker.
17 *The Treatment of the Pedicle in Ovariotomy and Salpingo-oöphorectomy. L. H. Dunning.
18 Post-graduate Work in Budapest. Willard J. Stone.
19 A Case of Venereal Warts. A. P. Stoner.
20 Circumcision in Infancy. William B. Harlow.

14. **Conservatism in Medicine and Surgery.**—Robinson's article is a plea for greater conservatism in medicine as well as surgery. He notices particularly in reference to the former the change of views regarding the cold bath in hyperthermic conditions, the over-use of arsenic, quinin, morphin, etc., the tendency to employ too many drugs and the need of attention to hygiene as against too indiscriminate drugging.

15. **Epidural Injections for Enuresis.**—Valentine and Townsend give the results of epidural injections according to the Cathelin method by injecting normal salt solution into the lower extremity of the spinal canal at the tip of the sacrum under antiseptic precautions, and describe the technic. The patient is placed on one side or the other and the lower sacral opening is then a little above the line between the nates, as he shows by a figure. When epidural injections are made for disturbance of urination the authors say it is well to place the patient in a sort of Sims position, the knees drawn as tightly as possible towards the chest and the legs flexed. The fingers are passed down over the sacral spinous processes until the last perceptible one is felt under the finger tips of the left index and middle fingers. These are then slightly separated and pushed downward until each of them presses an osseous tubercle. The skin is stretched over these tubercles, and between them is the point of puncture. The needle is held at an angle of about 40 degrees to the sacral curve and thrust through the tensely stretched skin, then depressed about 20 degrees and the middle finger raised from the skin while the index is pressed on the point of puncture to steady the needle and the tissues. In this position the needle is cautiously pushed up into the sacral canal, and if no gross abnormality exists and the method is sedulously followed, the needle can be entirely inserted without touching the periosteum of any part of the sacral canal. (See cuts on page 888 of THE JOURNAL.) An injection is slowly made of about nine-tenths of the contents. The after-treatment is simply wiping dry and covering the site of puncture with a little collodion. The conclusions which seem warranted are given by the authors as follows:

1. Epidural injections with decinormal salt solution offer the most promising results in abnormalities of urination due to faulty vesical innervation.
2. Incontinence of urine, enuresis, excessive frequency of urination (unless due to other pathologic conditions) can at least be ameliorated by epidural injections.
3. Cautiously performed, epidural injections are in no wise dangerous to the patient.
4. Epidural injections are no more painful than any hypodermatic injection with a mild solution.
5. Epidural injections can be performed by anyone who follows the technic outlined and is alert to those anatomic variations which are so frequent in the region.
6. The immediate effects of epidural injections are very rarely even disagreeable.

16. **Nitrous Oxid Anesthesia.**—Meeker advocates the use of nitrous oxid anesthesia as the safest method in minor surgical operations and as a preliminary to ether anesthesia.

17. **The Pedicle in Ovariotomy.**—Dunning reviews the various methods and gives the ordinary methods of treatment of the pedicle. He calls attention particularly to the dangers of intestinal adhesions to the stump in both ovariotomy and salpingo-oöphorectomy. Of a large number of methods brought forward to do away with the stump in the latter operation, none has seemed entirely satisfactory. The method he occasionally employs comes near meeting the requirements, but has an element of danger in inexperienced hands. This consists in boldly cutting across the fallopian tube at the uterine horn, then severing the attachment of the mesosalpinx from the under surface of the fallopian tube, cutting free the ovary from its attachment to the broad ligament and uterus, tying all bleeding vessels, and with a whip-row stitch closing in all raw surfaces. One unfortunate experience with hemorrhage led him to see the danger of such free cutting without more extensive ligation of the blood vessels. In some very vascular patients he has sometimes ligated the ovarian artery near the pelvic wall to avoid this. For several reasons the stump method is the preferable one if a sufficiently long pedicle can be found, but he points out the possible dangers and difficulties in covering the stumps. For many years he has used catgut alone for ligation, and has had no reason to regret the selection of this material. He never leaves the pedicle without having ligated each artery in it.

Medical News, New York.

September 26.

21 *Concerning Some Points in the Treatment of Typhoid Fever. Glentworth R. Butler.
22 *Note on Typhoid Fever and Scarlet Fever, with Special Reference to the Diagnostic Value of Blood Cultures. Ludvig Hektoen.
23 *Typhoid Fever in Infancy and Childhood. J. P. Crozer Griffith.
24 *Nourishment, Medication, Hydrotherapy and General Management of Typhoid Fever Cases. W. T. Baker.
25 *The Etiology and Chemical Pathology of Gallstones. (Continued.) C. A. Herter.
26 *The Pathology and Treatment of Tardy Post-operative Intestinal Obstruction, with a Report of Cases. [illegible]worth Eliot, Jr.

21. **Typhoid Fever.**—Butler believes in the milk diet, though varied with buttermilk, koumyss, oyster and clam soup, etc. The stools should be inspected for undigested curds and the milk be either stopped or diluted one-half with water, plain or mineral, or peptonized. If the patient is accustomed to tea or coffee, he would not cut them off entirely, but allow them once daily. In all cases lemonade, orange juice and grape juice are not only allowed, but encouraged, unless there is a troublesome diarrhea. Mutton, beef and chicken broths, bouillon, consommé or other clear soups are given in moderation unless the bowels are moving too freely. He also uses the white of an egg or the whole egg beaten up and employed a little sparingly. Plain ice cream, water ices and jellies are, as a rule, unobjectionable. Lactose is a valuable force producer and may be given in some cases, one, two or more ounces daily, dissolved in milk or water. With the above dietary the variety is usually sufficient, which is a matter of some importance unless the patient is delirious. We often prescribe more food than can be digested, and a persistent feeling of gastric discomfort, nausea, tympanites, etc., should be watched for. Water should be given as regularly as food. He would not take up solid food until three days or more after defervescence, and then use soft food only. He remarks that the cold bath is less used than formerly. Cold is not merely demanded for fever, but also for its stimulating and tonic effects, and he recommends the following methods for the application of cold: First, a cold-mitten rub, repeated at intervals of three to six hours when the fever reaches 102.5, then the towel bath of Baruch, and ice rub, which is still more vigorous in its action and requires some discretion in its use. The cold-mitten rub is usually sufficient for most cases. During the intervals between cold rubbings a wet compress to the abdomen is advised by some authorities, though he has seldom employed it. He advises measures of prophylaxis, such as disinfection of the patient's hands, cleansing of the nails, etc., and as regards medicinal treatment, many cases do best with little or no medication, but he thinks well of intestinal antiseptics and an initial dose of calomel, and remedies for intestinal hemorrhage, such as calcium chlorid and gelatin and powdered suprarenal as an arterial constrictor. A pint or more of a 10 per cent. solution of gelatin may be given in the twenty-four hours; 20 to 30 grains of calcium chlorid every two to four hours, and 5 or more grains of the desiccated suprarenal every four hours up to half a dram in twenty-four hours. He prefers these as a routine measure to the opium, ergot and lead of former treatment. To quiet the restlessness and excitement moderate doses of opium or its alkaloids are advisable in cases of hemorrhage.

22. **Blood Cultures in Typhoid.**—Hektoen reports a case and emphasizes the point that the practically constant presence of typhoid bacilli in the blood in the early stages during the height and at the beginning of relapses of typhoid makes it possible by the use of proper culture methods to settle the diagnosis of typhoid in special cases like those reported. This is also true in cases of paratyphoid fever.

23. **Typhoid Fever in Infancy and Childhood.**—Griffith points out the peculiar characters of typhoid in infancy and its greater frequency than has been generally estimated. The chief characteristics are the less typical onset and the tendency of nervous symptoms to overbalance intestinal ones. The average duration may be stated as from fourteen to twenty-one days, although often a little longer. The diagnosis is difficult and the value of the Widal test is inestimable. He emphasizes the importance of some complications and sequelæ. Relapses seem to be about as frequent as in adults. The prognosis is on the whole good. As for treatment, he does not advise cold baths. His custom is to apply sponging first, and if this is not sufficient a graduated bath of 90 degrees lowered down to 80 F. In many instances he has had good results with the abdominal ice bag. In some cases a warm tub bath of 95 to 100 is productive of good results. Sponging sometimes has a bad effect and it is a very questionable procedure in case the child is crying or struggling. Children develop a high temperature readily and tolerate it well, therefore the temperature can be let alone in many cases.

24. **The Treatment of Typhoid Fever.**—Baker believes in a more liberal diet in typhoid than some authors. He would allow more or less soft foods, but avoid any harsh materials. Mushy masses that do not over-distend the abdomen may do good by wiping off mucus and helping to carry off the discharges. For medication he thinks a cleaning out by the use of calomel useful; when the fever is high phenacetin, codein, salol and quinin in combination, and carbolic acid and tincture of iodin, 1 minim of the former, 2 of the latter in water every four hours in the daytime for its antiseptic effect. In case the carbolic acid is disagreeable any other good antiseptic will probably do. He notes the favorable reports as regards acetozone, but has not yet tried it. Hydrotherapy is used in all the ways he knows of, and he insists on the importance of good nursing. He tabulates 31 cases treated after this plan with good results, which he thinks support his view.

25. **Gallstones.**—Herter discusses the origin of gallstones, the existence of biliary stagnation producing infection and cholecystitis and the mode of action of the bacteria, decomposition of the bile and the influence of biliary reactions, concentration, foreign bodies and the agglutinative action of bacteria. He thinks gallstones may form within a comparatively short time, in three to six months under favorable conditions, and that bacteria may enter the gall bladder from the intestinal canal by the normal routes or from bacterial foci which discharge into the general circulation, and by the passage of bacteria from the intestine to the portal circulation, which he thinks is possible in spite of the negative results of Carmichael. The question whether constitutional influences can produce gallstones is also noted, and the need of future study on this point is mentioned. He reports experiments on the excessive feeding of fat as having a bearing on the production of biliary concretions, but the results are more suggestive than complete. Arteriosclerosis is possibly coincident, but not necessarily a cause. He thinks the future treatment of gallstones will be chiefly in the way of favoring the subsidence of cholecystitis.

26. **Post-Operative Intestinal Obstruction.**—The importance of avoiding adhesions in laparotomy cases liable to produce post-operative obstruction is emphasized by Eliot, who describes the symptoms and points out the dangers of leaving raw surfaces and of drainage. The immediate post-operative treatment for the prophylaxis of these adhesions is the establishing as early as possible of exaggerated peristalsis. During the first twenty-four hours he would use rectal enemata and warm saline solution, with or without turpentine, and in cases of persistent vomiting he would use lavage. As soon as the nausea and vomiting subside, small doses of calomel and salts should be administered and movements favored by high turpentine injections. The formation of adhesions is still further probably decreased by frequent changes in posture and the raising or lowering of the head, the foot or sides of the bed. These are not routine methods in every case, but only when there has been an extensive or infectious peritonitis or after operations involving suture of intestinal loops or operations for the relief of obstruction due to bands. The actual treatment of the obstruction itself does not differ from the treatment of obstruction from any cause. Early laparotomy, the ligation and removal of constricting bands, the disentanglement of adherent intestine, with resection if necessary, the closure of the abdomen with or without drainage and the prevention if possible of subsequent adhesions is the general routine treatment. Several cases are reported in detail.

Boston Medical and Surgical Journal.

September 24.

27 The Ill Health of Francis Parkman. (Continued.) George M. Gould.
28 Three Cases of Tumor of the Cerebellum. John J. Thomas.
29 *Tuberculosis of the Spine. A Statistical Study of the Cases in the Orthopedic Department of the Carney Hospital. Joel E. Goldthwait.
30 *A Note on the Association of a Rise in Systolic Blood Pressure with the Onset of Perforative Peritonitis in Typhoid Fever. John Bradford Briggs.

29. **Tuberculosis of the Spine.**—Goldthwait analyzes 108 cases of Pott's disease in the out-patients of the orthopedic

department of the Carney Hospital prior to 1902. Sixty-two of these reported more or less regularly for treatment; 41 of the latter were under 30 years of age, and in 21 of the cases the disease had existed for from six to twenty years before applying for treatment. In 20 cases there was abscess. Of this number 8 died and 4 are at present in poor condition. In 11 cases there was paraplegia, and of this number 2 died. Of the 62 cases 11 died. In nearly all the cases death was due to local infection or to its extension to some other part of the body, the average time between the onset of the disease and the time of death being four years. He calls attention to the fact that these cases were hospital ones, living under poor hygienic conditions. At the last report 20 patients were entirely free from symptoms, and in 18 others there has been great improvement.

30. **Blood Pressure and Typhoid Perforation.**—For two years Briggs has noticed a sharp rise in the systolic blood pressure, as measured by a modified Riva-Rocci apparatus, occurring in patients undergoing laparotomy and produced by mechanical irritation of the peritoneum. Dr. Harvey Cushing suggested that a similar rise in the blood pressure could possibly be produced by intestinal perforation and might be of value in the early recognition of this accident. From Briggs' own observation and those of Dr. Cook he notices that patients suffering from acute general or rapidly spreading peritonitis, of whatever origin, uniformly showed a state of hypertension of the pulse, and similar observations have been made and reported by Crile. During the past year they kept close watch on the blood pressure in the typhoid patients in Dr. Osler's service in the Johns Hopkins Hospital, and in 2 patients out of a large number abdominal symptoms justifying exploratory laparotomy were observed and the condition of the blood pressure in each was of interest. These 2 cases are briefly reported. In one perforations were found; in the other the symptoms suggested perforation, but there was no rise of blood pressure to speak of, and Briggs considered therefore that no perforation had occurred, but the abdomen was opened and the intestines carefully examined and no perforation found. He thinks it seems certain that patients with a general or rapidly spreading peritonitis have constantly, or at least in early periods, an abnormally high blood pressure. That in perforative peritonitis a sharp rise in blood pressure may precede the onset of other symptoms. That in doubtful cases like his second one, where perforation is suspected, and the general previous blood pressure is known, the course of blood pressure after the onset of grave symptoms should receive consideration in determining the propriety of operation.

Cincinnati Lancet-Clinic.

September 26.

31 The Physician of To-day. George J. Monroe.
32 Surgery of Prostate, Pancreas, Diaphragm, Spleen and Thyroid. (Continued.) B. Merrill Ricketts.

American Journal of Orthopedic Surgery, Boston.

August.

33 The Family Physician, the Specialist and the Patient. Louis A. Weigel.
34 *The Correction of Deformity at the Hip, the Result of Disease. A Study of the Best Methods and Best Positions. Virgil P. Gibney.
35 *Subtrochanteric Osteotomy in Adults, in Adolescents and in Young Children. E. H. Bradford.
36 The Mechanical vs. the Operative Treatment of Rachitic Deformities of the Lower Extremities, Presenting a New Osteoclast. R. Tunstall Taylor.
37 *The Surgical Pathology of Genu Varum and Genu Valgum. Wallace Blanchard.
38 *The Occurrence of Painful Affections of the Feet Among Trained Nurses. Robert W. Lovett.
39 *A Further Consideration of a Modified Form of Osteotomy Combined with Osteoclasis, Osteotomoclasis. W. Barton Hopkins.
40 A Consideration of the "Round Shoulder" or "Stoop Shoulder" Deformity in Childhood, with Especial Reference to the Proper Adjustment of the Clothing in Preventing and Treating Such Conditions. Joel E. Goldthwait.
41 The Abuse of Flat-foot Supports. Wisner R. Townsend.
42 The Importance of Supplementing Tendon Transplantation in the Treatment of Paralytic Talipes by Other Procedures Designed to Assure Stability. Royal Whitman.

34. **Deformity at the Hip.**—Gibney deprecates the use of force in the correction of hip deformities resulting from disease, and rather favors the use of subcutaneous osteotomy in these cases. He holds that the corrected position must be maintained for many months under a closely fitting plaster-of-paris bandage followed by a closely fitting splint for several months more. He would prefer to have the ankylosed limb straight rather than slightly flexed, as there is less danger of developing trouble later with this than with the flexed limb, and walking is less interfered with.

35. **Subtrochanteric Osteotomy.**—Bradford claims that the operation of subtrochanteric osteotomy for the correction of deformity following hip disease can be done in adults without fear of non-union, or even in middle life, and that the danger of relapse is greater when the operation is done in childhood or rapidly growing years. The period of convalescence and disability, however, is comparatively longer when the operation is begun later in life, but he recommends deferring the operation when possible until the period of rapid growth is passed.

37. **Genu Varum and Genu Valgum.**—In these conditions Blanchard believes in correction by osteoclasis or osteotomy and that epiphysiotomy is hardly worthy of consideration. Osteotomy has some slight dangers from which osteoclasis is free, and the long period required for bone union and recovery would condemn it when osteoclasis is available.

38.—This article appeared elsewhere. See THE JOURNAL of July 18, ¶6, p. 204.

39. **Osteotomoclasis.**—This new operation is suggested by Hopkins in cases where simple osteotomy is inappropriate. It consists in a combination of partial osteotomy and osteoclasis. Partial section, he says, seems to be a rational preliminary step to osteoclasis in certain cases. He would use the combined operation in cases suitable for osteotomy, producing the simple instead of compound fracture by the method, osteoclasis being performed after the skin wound has entirely healed.

Annals of Surgery, Philadelphia.

September.

43 *Operative Possibilities in Cases of Advanced Carcinoma of the Breast. Lewis S. Pilcher.
44 *Cystic Degeneration of the Mamma, Showing Transformation Into Scirrhous Carcinoma. Aller G. Ellis.
45 Surgical Treatment of Cholelithiasis. Albert A. Berg.
46 A Prostatic Tractor for Perineal Prostatectomy. G. Frank Lydston.
47 A Case of Ascites Due to Liver Cirrhosis Treated by Operation. Rutherford Morison.
48 Gangrene of Colon and Ileum After Operation for Appendicitis. Nathaniel P. Dandridge.
49 Paraffin Casts of Urethral Calyces, Pelves and Ureters. Byron Robinson.
50 Embolic Gangrene of the Leg as a Sequel of Acute Lobar Pneumonia. Charles L. Gibson.
51 *Fractures of the Vertebræ. John E. Owens.
52 *Dislocation of the Outer End of the Clavicle. John G. Sheldon.
53 *Method of Retaining Ends of Fractured Bones in Apposition During Fixation by Plaster-of-Paris Dressing, etc. Robert W. Johnson.
54 Blood Examinations in Their Relation to Surgical Procedures. L. L. McArthur.
55 On Myositis Ossificans Traumatica. John F. Binnie.
56 Bridge for Treatment of Nasal Fractures and Deformities. W. W. Grant.

43. **Carcinoma of the Breast.**—Pilcher gives the results of 50 cases which have been under his care in the Seney Methodist Hospital from 1888 to 1900. In 7 of them the disease had extended beyond the possibility of entire removal, and in 1 of these, in which a portion of the rib was removed, pneumonia developed which proved fatal in three days. This is the only fatality attributed to operation in the whole series. He classifies his operations according to their extent. In 2 cases ablation was complete to the apex of the axilla, without removal of any pectoral muscle. One of these remained well for six years, when intrathoracic disease developed which proved fatal. The second underwent a second operation eighteen months later, and remained well for five years, when the same disease appeared in the other breast. This second breast was removed, together with the contents of the axilla and the pectoralis major, but cancer of the liver appeared three years later and death occurred ten years after the first operation. In 11 cases ablation was complete to the apex of the axilla with removal of the pectoralis major muscle. Three cases are still well at the end of eight years or more. One died of cerebral apoplexy one year after operation without recurrence of the disease. Another one has remained well for

six years, but has had slowly advancing carcinoma since, and is now, nine years after operation, still living, but in feeble health. Three cases died from recurrence within periods of from a few months to two years. The eighth case was the one already mentioned in the preceding class. One remained well for a year and has since been lost sight of. In the third class, where both pectoralis muscles were removed, 2 are well for three years or more after the operation; one is living five and a half years later, but has a slowly advancing recurrence. Another is still living three years after operation without external recurrence, but with evidence of liver carcinoma; 6 died at periods varying from 12 months to five and a half years after the operation. In 18 cases operation was still more extensive; one or both pectoralis muscles were removed and the glands in the subclavicular region. Only 2 of these patients have remained well at six and four and a half years respectively, though one of them has beginning enlargement which suggests a recurrent disease in the ribs. The others are all dead, mainly from intrathoracic metastases. Pilcher considers that his experience has emphasized the fact that nothing is more illusive than the apparent local extent of carcinoma processes. The size of the local growth is no positive index to the number and distance of outlying deposits. He insists that practically every case of carcinoma of the breast when it has reached that degree of development at which a probable tumor is formed is already in an advanced stage and metastatic processes have, as a rule, already begun to be formed. Nevertheless, experience warrants the statement that surgery can promise a large percentage of absolute cures if employed as soon as the presence of the disease is determined.

44.—This article appeared elsewhere. See THE JOURNAL of September 5, title 91, p. 637.

51. **Fracture of the Vertebrae.**—The following are the conclusion of Owens' paper, which includes a report of cases and a discussion of the localization:

1. Laminectomy is superior to a simple reduction of the deformity, since, in fractures of the arches, reduction has no certain effect on isolated fragments, and reduction alone has hastened death. 2. Reduction may be more rational when effected through the open wound of laminectomy. 3. Simple reduction is useless where there are clots or adhesions sufficient in themselves to account for the spinal disturbance. 4. In cases of cervical luxation without fracture, simple reduction has given good results. 5. It is possible to still further improve the prognosis of reduction in simple cervical luxations by making the reduction with the arches exposed and employing silver wire suture of the processes to prevent relapse. In consideration of the distressing prognosis in lesions of the cervical region, an operation appears strongly indicated. Degeneration is observed wherever the narrowing factor is not removed. The treatment of vertebral fractures without operation offers a chance of success only where there exists little or no disturbance of the spinal cord, such as paralysis of a single group of muscles, one-sided paralysis or partial disturbances of sensibility, etc. In all cases where the usual assemblage of symptoms indicates a severe alteration of the cord, only prompt operations directly afford the best chances of securing improvement or cure.

52. **Dislocation of the Clavicle.**—Sheldon discusses the diagnosis of the condition and the conclusion which he reaches is that operation is advisable in every case where there is complete rupture of the coracoclavicular ligaments. There is only one case reported with symptoms pointing to complete rupture that terminated favorably without operation. The most approved method of procedure is exposure of the joint by incision; drilling the clavicle and acromion; passing and tying two absorbable sutures; approximating ligaments and fascia with fine catgut and suturing the skin wound with silkworm gut. He does not believe in the use of silver wire for suturing the bone, holding that absorbable sutures are better.

53. **Method of Retaining Fractured Ends in Position.**—Johnson suggests the following method as valuable in retaining the ends of fractured bones in position while applying plaster casts. His method is to take two or three strips of bandage, smear them with vaselin and apply one strip around the humerus for example, above the fracture, one just over the seat of fracture and the third on the forearm just below the elbow, these being applied under anesthesia. These strips are given to two assistants, and under the surgeon's direction the upper one may be pulled back, the lower one down, and the middle one tightened to keep the bones from tilting up at that point after they have been approximated. Then he would put on a loose flannel roller from the hand to the axilla, then a sufficiency of raw cotton, and finally plaster rollers, ignoring the traction strips and putting the bandages, cotton, etc., around or over them as if they did not exist, the assistants keeping up their pull in the lines indicated. In five minutes the plaster has hardened and the bones are fixed in the position desired. These tense straps which the assistants have been pulling on might produce strangulation if left, but as they are covered with vaselin by letting go one end there is no difficulty in pulling them out from beneath the plaster, leaving a small hole, which can be easily filled up to make it neat. As soon as they are removed split the plaster down in front and bring it together loosely with the adhesive strips so as to make room for the tension from swelling of the arm. He has repeatedly used this method. He frequently keeps the splints on for the whole treatment with satisfactory results.

Louisville Monthly Journal of Medicine and Surgery.

September.

57 Glaucoma. T. C. Evans.
58 Appendicitis from the Standpoint of the Patient. Samuel G. Dabney.
59 Management of the Third Stage of Labor. Cassius D. Mansfield.
60 The Surgical Treatment of Abdominal Diseases. Louis Frank.
61 Empiricism and Medical Commercialism. D. L. Field.
62 Harshness of the Hairs. A. K. Bond.
63 *Pertussis as an Etiologic Factor in Uterine Displacements. Walter B. Jennings.

63. **Pertussis and Uterine Displacements.**—Jennings considers the anatomy of the uterine supports and the effects of paroxysms of pertussis on the body. He reports a case in a young woman of the athletic type who while perfectly well up to 20 years of age developed a third degree backward displacement of the uterus after an attack of pertussis. So far as it is possible to draw conclusions from the case they should be as follows:

1. Pertussis may be an exciting cause of backward displacement of the uterus. 2. The effect of the paroxysm would be to loosen the uterine ligaments, and muscular contraction of the abdominal muscle, together with a downward pressure of the diaphragm, would tend to force the uterus backward. 3. As a result of venous stasis of all the organs in the body, there would be a tendency to an increase in the weight of the uterus, and this would tend to a backward displacement.

The Post-Graduate, New York.

September.

64 Benign Ulcerations of the Bowels and Anus. Samuel G. Gant.
65 *A Study Concerning the Bacteriology of the Blood in Sepsis and the Value of Bacteriologic Blood Examination in Clinical Diagnosis. Harris A. Houghton.
66 Osseous Cysts. Carl Beck.
67 The Lymphoid Tissue of the Pharynx. Charles Graef.
68 Notes from the Clinics. (Management of Acute Suppuration of the Middle Ear, etc.) Wendell C. Phillips.

65. **Bacteriology of the Blood.**—Houghton reviews the literature and reports experiments and investigations, describing his methods. He concludes that the approximately normal blood contains pyogenic bacteria in a greater or less degree, their manifestation depending on other conditions. Bacteriologic examination of the blood is of little or no value in the diagnosis or prognosis or as indicating treatment. When positive results are obtained there is no assurance that the infective agent found is that which is responsible for the primary infection; or that it is not a cryptogenetic infection; or that a second examination will likewise prove positive; or where only one infective agent is found that this is the only one present; or where two are found that both are concerned in the primary infection. In cases where the results are negative we have no reason to believe that the blood is free from bacteria, or that another examination will likewise prove negative.

Occidental Medical Times, San Francisco.

September.

69 *Annual Report of the San Francisco Board of Health.
70 *The Liver Reflex. Albert Abrams.
71 Case of Poisoning by Carbon Monoxide. Kate P. Van Orden.
72 The Mysteries of Plague, Past and Present. C. N. Ellinwood.

69.—This article was noticed editorially in THE JOURNAL of October 3, p. 856.

70. **The Liver Reflex.**—This is described by Abrams as elicited by irritating the skin contiguous to the lower liver border, either electrically or by a spray of ether, or scratching of the skin by the finger nail or the blunt end of a pencil. The lower liver border can be observed after this maneuver

to recede one-half inch or more, depending on the degree of irritation. The retraction is dependent entirely on the contractility of the organ itself and the muscle fibers in its fibrous coat. The size of the liver can also be influenced by what he has called the cardio-splanchnic phenomenon. He enters at length into the directions for percussion of the liver to elicit this reflex, and the difficulties due to the thinness of the border and the hollow organs bounding it. The patient must be instructed to take no inspiration while the body is inclined backward and light percussion is executed, otherwise there will be a downward respiratory dislocation of the liver. In practicing percussion the finger receiving the percussion blow must be firmly imbedded in the abdominal wall, otherwise it will not be directly transmitted to the liver. He points out that this reflex is more pronounced in cases of active or passive congestion. In case the liver enlargement is due to a connective tissue hyperplasia, it will be absent or only slightly present. The prognosis and treatment may be affected in both ways. The sinusoidal current is really the best irritant for eliciting the reflex.

Medical Herald, St. Joseph, Mo.

September.

73 Utility of Intestinal Antiseptics in Typhoid Fever. N. S. Davis, Jr.
74 Principles in Drainage. C. H. Mayo.
75 *Fowler's Position in Abdominal Surgery. Van Buren Knott
76 Evisceration of Eye with Implantation of Glass Vitreous vs. Enucleation. F. W. Dean.
77 Hemorrhagic Pancreatitis, with Report of a Case. A. M. Pond.
78 Treatment of Gastric Motor Insufficiency. John B. Tyrrell.
79 Traumatic Lesions of the Spine. W. W. Bowen.
80 Tendon Transplantation in the Treatment of Paralytic Deformities. Frank C. Davis.
81 Kaiser Frederick III. and His Physicians. Ralph H. Parker.

75. Fowler's Position.—Knott advocates the use of Fowler's position which, instead of draining the immune portion of the peritoneal cavity on to the upper and sensitive portion, reverses the process, and he wonders that the method was not earlier recommended in cases of septic peritonitis. He reports five cases in which it was successfully used. The theoretic assumption that in debilitated patients the elevated head position might be pernicious is not verified in his cases, as there has been no cardiac embarrassment or other symptoms referable to the position, and patients have declared that they were more comfortable with the head elevated than with it down. He has noticed also that flatus has been passed earlier and more freely and there is no increased tendency to phlebitis. The position is maintained for twenty-four hours unless some special reason for continuing it was present. The head of the bed should be raised from twenty-four to thirty inches from the floor, and an elevation of thirty inches is much better than one of twelve.

American Journal of the Medical Sciences, Philadelphia.

September.

82 *Acute Myelogenic Leukemia. Frank Billings and Joseph A. Capps.
83 Tumor of the Intercarotid Body. A Report of One Case, Together with All Cases in the Literature. Charles L. Scudder.
84 *A Study of the Physical Signs of Lobar Pneumonia. Lewis A. Connor and George E. Dodge.
85 Primary Carcinoma of the Liver. H. Gideon Wells.
86 A Résumé of Some of the Year's Literature on the Liver and Gall Bladder. Herbert S. Carter.
87 *The Relation of Certain Adenocarcinomata to Atrophic Scirrhus of the Breast. J. Clark Stewart.
88 Report of Two Cases of Ulcerative Angina and Stomatitis, Associated with the Fusiform Bacillus and Spirillum of Vincent. Jessie Weston Fisher.
89 *The "Idiopathic" or "Essential" Dropsies of Childhood. Arthur W. Fairbanks.
90 Nephropexy in a Case of Chronic Nephritis. J. Norman Henry.
91 Orthostatic Albuminuria: Report of a Case. Harvey G. Beck.
92 On the Occurrence of Ehrlich's Dimethylamidobenzaldehyde Reaction in the Urine. Charles E. Simon.
93 *Syphilis as a Cause of Chorea. L. Harrison Mettler.
94 A Brief Report of 227 Cases of Paresis. Horace Phillips.
95 *Arguments in Favor of the Existence of a Separate Center for Writing. Hermon C. Gordinier.
96 A Contribution to the Surgery of the Brain, with the Report of Two Cases of Tumors of the Cerebellum Which Were Located and on Which Operations Were Performed. William H. Hudson.

82. Acute Myelogenic Leukemia.—Billings and Capps report a case which they refer to this type and discuss the literature, reviewing eight reported cases which seem to be unmistakable. From these published cases as a basis they sum up the blood picture of acute myelogenic leukemia as follows:

1. Anemia, progressive and severe. 2. A large increase of white blood corpuscles (16,000 to 540,000). 3. A large proportion of the white cells (25 to 96 per cent.) made up of myelocytes, large mononuclear cells of the same size, and faintly granular large mononuclear cells (transitional cells). 4. Eosinophiles, mast cells and nucleated red corpuscles may be absent or present in varying numbers.

84. Pneumonia.—The early symptoms of lobar pneumonia are reviewed by Conner and Dodge from observations of a series of 392 cases. They notice particularly the enfeeblement of respiration among the earliest symptoms, and attribute its cause to the greatly restricted expansion of the enlarged and stiffened part of the lung. The length of time in which the area of feeble breathing was observed before the appearance of bronchial breathing varied from one day or less to five days. Harsh or exaggerated breathing occurred in 8 out of 124 cases of beginning pneumonia, which they take to signify deep-seated involvement of the structure. Râles were heard in 110 cases before the advent of bronchial breathing; about 50 per cent. were described as crepitant, most of the remainder as subcrepitant. Their experience corresponds with that of Skoda, that crepitant râles are by no means always observed. They place the physical signs of beginning pneumonia in the order of relative frequency, as: 1. A circumscribed area of feeble, indistinct breathing as compared with the breathing at the corresponding point on the other side. 2. A circumscribed area of impaired resonance, with or without a tympanic quality, obtained under similar precautions. 3. The crepitant râle. 4. A slight increase in the intensity and clearness of the vocal resonance. Bronchial breathing and bronchophony make their appearance coexistent with and indicative of complete hepatization of a larger or smaller portion of the lung tissue. In almost all the cases observed the bronchial quality first appeared during expiration. In most cases the sounds were faint, soft and of very low pitch, usually existing for about twelve hours, but occasionally for longer periods. Concerning the signs of percussion in the second stage, they find that when the consolidation affects the right lower lobe posteriorly, there is found very commonly over the middle lobe in front a strikingly deep, hyperresonant note of more or less distinctive tympanic value. This is heard in the circumscribed area in the fourth and fifth spaces within the nipple line. It has been frequently possible by it to predict the position of the consolidation before the back had been examined. The bronchial breathing usually appeared from the third to the fifth day, rarely in the first day. In four cases of undoubted pneumonia neither bronchial breathing nor bronchophony could be found at any time. The gradation of change from bronchial to normal vesicular breathing should fall in inverse order to that observed in consolidation. The relation of the disappearance of bronchial breathing to defervescence is mentioned. This occurred at various periods from before defervescence until six or seven days after, or more. They notice here in this respect three distinct groups: 1. Those in which the signs of consolidation appear one, two or three days before the temperature fall. 2. Those cases, by far the most numerous, in which beginning resolution coincided with the fall in temperature or followed it in a day or two, and in which resolution progressed rapidly and was complete within a few days or more. 3. Those cases in which with defervescence signs of complete consolidation persisted for several days or longer before the appearance of beginning resolution. There were 30 in which the signs of consolidation lasted for more than two weeks, and in one where there were no signs of consolidation for sixty days. The question of central pneumonia is discussed. The authors think the practice of applying this term to cases where signs of consolidation are late in appearing is unwarranted, and that this stage of diminished breathing in pneumonia corresponds with incomplete consolidation or engorgement limited to the interior of the lobe. They hold that true cases of central pneumonia are probably much rarer than popularly supposed. They have noticed a progressive rise and fall in the pitch of bronchial breathing and consider it related rather to the degree of consolidation than to the proximity of the consolidation to the surface.

87. Relations **Between Adenocarcinoma and Scirrhus.**—Stewart discusses the question of this relation and reports cases illustrating his views. His summary is as follows:

1. The term atrophic scirrhus is worthy of retention as describing an important clinical entity. 2. It is extremely doubtful whether such cases are benefited by operation. 3. Certain adenocarcinomata of the breast have the clinical history of the atrophic scirrhus. 4. It seems probable that if more of these tumors were studied histologically they might prove to have an adenomatous element to justify their comparative benignancy.

89. The **"Essential" Dropsies of Childhood.**—Fairbanks describes the angioneurotic edemas of childhood, reporting personal observations and reviewing the literature. He adopts the neurotic theory, holding that no one bodily cause can be regarded as essential unless it is exposure to cold. He does not recognize the close relation of the condition to urticaria, holding that the occurrence of the latter is secondary.

93. **Syphilis as a Cause of Chorea.**—Metzler reports cases and discusses syphilis as a cause. He formulates his conclusions thus:

1. Syphilis in rare instances is a cause of chorea, and should always be thought of as a possibility in the examination of every case. 2. Chorea may be the result of acquired or hereditary syphilis. 3. Most of the cases of syphilitic chorea are unilateral; belong to the prehemiplegic or posthemiplegic type of the disease; may or may not be associated with other signs of an irritative lesion; are not infrequently developed in hereditary syphilitics, and are to be attributed probably to a functional disturbance of an irritative sort in the cortical and ganglionic motor cells. 4. The existence and recognition of these two forms of syphilitic chorea—the focal and the generalized—support the inference that all forms of chorea are but the expression of one or more of a multiplicity of possible factors which may disturb the functional activity of the upper motor neurons, these factors being all the way from a gross lesion down to a molecular or chemical change not demonstrable with our present means of investigation. This conclusion leads to the further conclusion that chorea is not a disease, but a mere symptom. 5. Syphilis, when determined as the cause of a case of chorea, should lead to the prompt and thorough treatment of the case as one of syphilis and not chorea.

95. **The Writing Center.**—The existence of a separate center for writing is maintained by Gordinier, who reports a case which seems to prove the existence of a separate and distinct cortical center for writing, having the same relation to writing movements as the motor speech center has to speech movements. This center is located at the base of the second left frontal convolution for the right-handed. Destruction of this center produces pure motor agraphia without aphasia or paralysis of either arm. The case is illustrated, showing the lesion in the place indicated, and seems to be fairly conclusive as far as a single case can be.

Journal of Advanced Therapeutics, New York.

September.

97 The Therapeutics of the Continuous Current. Margaret A. Cleaves.
98 Current Differentiation. A. D. Rockwell.
99 *Rheumatoid Arthritis. Francis B. Bishop.
100 Answers and Objections to Dr. A. A. O'Neill's Paper, "X-Ray Era," on Electrolysis in Urethral Strictures. Robert Newman.
101 The Electrical Treatment of a Case of Fibroid Uterus with Disease of the Right Ovary and Tube; Symptomatic Cure. Amédée Granger.
102 The Treatment of Chronic Diseases by Physical Therapeutics, Through the Sympathetic Nervous System. Albert C. Geyser.

99. **Rheumatoid Arthritis.**—Bishop holds that this is a disease of the nervous system. The treatment which he would use for the earlier cases is the application of a surging high potential alternating current on each side of the vertebræ for five or six times. After this he treats the liver, kidney region, spleen and lymphatic vessels and glands as well as the joints. This alternating surging current produces an efficient and very deeply penetrating spark, which is practically painless. When treatment has been begun early enough decided improvement has taken place. When it cures it is gradual and progressive, but may require months. He insists on the importance of early diagnosis. Trophic changes are first in the nerve centers, second in the nerves, and lastly in the muscles and joints.

Annals of Gynecology and Pediatry, Boston.

September.

103 Cysts of the Kidney. Augustin H. Goelet.
104 *The Toilet of the Peritoneum in Tuberculous Peritonitis. A. J. Ochsner.
105 The Remote Effects of Latent Gonorrhea in the Female. W. E. Fitch.

104. **Tuberculous Peritonitis.**—Ochsner has tabulated 32 cases of tuberculous peritonitis treated in one hospital, showing the immediate and late results. Since then he has operated on 8 cases, and from all these, though the number is small, he thinks the following conclusions concerning the toilet of the peritoneum in these cases are warranted:

1. In the absence of ascitic fluid in the peritoneal cavity, the diseased tissues may be removed with safety if the section is made entirely in healthy tissue. 2. In the presence of ascitic fluid the latter should be evacuated and the abdominal cavity drained. 3. Great care should be exercised in making the intra-abdominal manipulations and examination not to cause any abrasions. 4. Adhesions should not be disturbed. 5. The less the tissues are manipulated, the better will be the results. 6. Manipulations of the infected pelvic organs—uterus, ovaries, fallopian tubes—is less harmful than manipulations of the infected intestines.

Illinois Medical Journal, Springfield.

September.

106 The General Practitioner and His Relation to Early Surgical Operation. E. B. Montgomery.
107 The Responsibility of the Surgeon. J. E. Coleman.
108 *Tonsillar Hemorrhage. Lawrence R. Ryan.
109 Accidents of the Antrum, with Special Reference to a Peculiar Case. E. V. D. Morris.
110 The Treatment of Eye Injuries. H. Gradle.
111 The Surgical Treatment of Trachoma, with a Report of Cases and Demonstration of Methods. J. Whitefield Smith.
112 *Management of Crossed-eyes in Children. Willis O. Nance.
113 *The Danger That May Lurk in Blind Eyes. Cassius D. Wescott.
114 Gastrostomy by the Franck Method. Joseph B. Bacon.
115 *Vibration Massage in the Treatment of Chronic Prostatitis. Louis E. Schmidt.

108. **Tonsillar Hemorrhage.**—The prevalent opinion that tonsillar hemorrhage is seldom dangerous is refuted by Ryan, who reports cases where very serious trouble and danger followed operation. He reviews the statements of others and shows that it is clear that alarming cases do sometimes occur, though as yet no fatal cases have been recorded. The dense fibrous tonsil of the young adult seems to produce the most dangerous symptoms. He would put the various methods in the following order in the order of their danger: 1. Removal by bistoury, an almost obsolete method. 2. Removal by the tonsillotome, which elevates the tonsil. 3. Removal by the flat tonsillotome as done by McKenzie. 4. Removal by the galvanocautery snare. 5. Removal by the cold snare. 6. Dissection or tonsillectomy by the galvanocautery knife, requiring several sittings. He would hesitate now about removing by amputation the fibrous tonsil of people over 25 years of age, and especially if it is densely fibrous.

112.—This article has appeared elsewhere. See THE JOURNAL, August 1, ¶39, p. 337.

113.—Ibid., September 12, ¶16, p. 684.

115.—Ibid., ¶65, p. 687.

Northwestern Lancet, Minneapolis.

September 1.

116 Eye Strain from the Viewpoint of the General Practitioner. Edward B. Taylor.
117 The Sequels of Appendicitis. James E. Moore.
118 Report of a Case of Perforative Typhoid Ulcer; Diffuse Suppurative Peritonitis; with Operation and Recovery. H. B. Sweetser.
119 The Common Mind; Has It an Existence, and to What Extent Can It Be Depended on in the Discussion of Public Questions? Edward J. Brown.

Albany Medical Annals.

September.

120 Hygiene in the Prevention and Cure of Disease. George Haner.
121 Prevention of Smallpox. F. C. Curtis.
122 Some Sequelæ of Smallpox. Joseph D. Craig.

Canada Lancet, Toronto.

September.

123 Address, Canadian Medical Association, London. W. H. Moorehouse.
124 The Cardiac Aspect of Arteriosclerosis. T. W. G. McKay.
125 The Renal Aspect of Arteriosclerosis. John Caven.
126 Cerebral Aspect of Arteriosclerosis. H. A. McCallum.
127 Eye Symptoms in Arteriosclerosis. J. C. Connell.
128 The Therapeutics of Arteriosclerosis. John L. Davison.
129 Some Business Aspects of Medical Practice. N. A. Powell.
130 Intoxication in Appendicitis. Edward Hornibrook.

Iowa Medical Journal, Des Moines.

September 15.

131 Diagnosis and Treatment of Typhoid Fever. L. W. Littig.
132 Pathology and Bacteriology of Typhoid Fever. Charles H. Hoffman.
133 Observations and Impressions of Medicine and Medical Men Abroad. G. E. Crawford.

Toledo Medical and Surgical Reporter.

September.

134 Antistreptococcic Serum in Puerperal Septicemia. Claren S. Miller.

135 The Care of Inebriates. E. H. Rorick.
136 Injuries to the Nose and Immediate Treatment. George W. Spohn.
137 Scientific Work in Ohio's State Medical Institutions. A. P. Ohlmacher.

New Orleans Medical and Surgical Journal.

September.

138 History of Maritime Quarantine in Louisiana Against Yellow Fever. Quitman Kohnke.
139 Boon and Bane. William L. Rabe.
140 Pneumogastric Sedatives. William F. Waugh.

New Yorker medicinische Monatschrift.

August.

141 Zur Behandlung einiger chronischer Gelenkleiden (Treatment of Certain Chronic Joint Diseases). Max Schüller.

Medical Bulletin, Philadelphia.

September.

142 Vesicular Emphysema; Valvular Disease of the Heart. J. V. Shoemaker.
143 Carbuncle. William L. Rodman.
144 The Treatment of Asthma. George W. Pfromm.
145 Herpes Zoster of the Neck, with Temporary Glycosuria Consecutive to Angina. M. E. Rouyer.

Interstate Medical Journal, St. Louis.

September.

146 Additional Cases in Which the Author's Silver Filigree Was Used for the Radical Cure of Abdominal Hernia. William Bartlett.
147 Diagnosis of Syphilis of the Eye. Joseph W. Sherer.
148 Ileo-colitis. L. L. Meanes.
149 A Case of Sodium Chlorid Poisoning in a Child. John Zahorsky.
150 Case of Multiple Neuritis Following Mumps. John Zahorsky.
151 Influenza Otitis. Algernon S. Barnes, Jr.

Washington Medical Annals.

September.

152 Rheumatoid Arthritis. Francis B. Bishop.
153 Case of Enucleation of Eyeball Which Had Been Injured by a Piece of Steel Penetrating the Eye and Causing Sympathetic Irritation; Implantation of Gold Ball in Tenon's Capsule. E. Oliver Belt.
154 Case of Renal Calculus. A. A. Snyder.
155 Two Cases of Fracture of Skull by Baseball Bats. A. A. Snyder.
156 Case of Myxedema in a Child Three Years Old. G. N. Acker.
157 Cases of Early Carcinomata and Fibromata of the Uterus, Ovarian Fibroids and Umbilical Hernia. J. Wesley Bovée.
158 Clinical Notes of Three Cases of Cesarean Section and Two of Basiotripsy. Henry D. Fry.
159 Case of Fibroid Tumor of Left Broad Ligament. Duff G. Lewis.
160 Case of Cholelithiasis. A. A. Snyder.

Providence Medical Journal.

September.

161 The Community and Tuberculosis. Jay Perkins.
162 Catheterization of the Ureters. John W. Keefe.
163 A Case of Submucous Fibroid, Complicating Labor and the Puerperium, with Retained Placenta. A Case of Rupture of the Uterus. H. G. Partridge.

Woman's Medical Journal, Toledo.

August.

164 The Prevention of Insanity. Lena A. Beach.
165 Discussion of Prevention of Insanity. Anne Burnett.
166 Physical Culture and Manual Training in Our Schools. Edith Gould Fosnes.
167 Ileo-colitis. Lena L. Meanes.
168 Children and Their Teeth. Alice M. Steeves.
169 Atropin in Cholera Infantum. William F. Waugh.

Bulletin of the Kentucky State Medical Association, Louisville.

July.

170 Some Things the Obstetrician May Do to Assist the Lying-in Woman, and Some Things that He Had Better Not Do. T. J. Shoemaker.
171 Mechanical Device for Protecting the Perineum. E. J. Brown.
172 The Mechanism of Occipito-Posterior Positions. Walker B. Gossett.
173 Anesthetics. C. H. Todd.

Medical Examiner and Practitioner, New York.

August.

174 Studies in Centenarianism. John Marshall French.
175 The Medical and Social Aspects of Child Labor. Frederick L. Hoffman.
176 A Study on Light. J. Mount Bleyer.

New England Medical Monthly, Danbury, Conn.

September.

177 Intravenous Collargolum Injections in Septic Affections. Hermann Schmidt.

Alabama Medical Journal, Birmingham.

September.

178 Summer Diarrhea in Children. J. Ross Snyder.
179 Address, Medical Association of the State of Alabama. Lewis C. Morria.
180 The Treatment of Fracture-Dislocations of the Spine, with Injury to the Spinal Cord. W. W. Richardson.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

September 19.

1 *A Discussion on Disposal of Excreta in the Tropics. W. J. Simpson and others.
2 *Sprue: Primary and Secondary. P. W. Bassett-Smith.
3 Malaria: The Mode of Entry of the Spore Into the Red Corpuscle. Cuthbert Christy.
4 *Discussion on Trypanosomiasis. Patrick Manson and others.
5 Five Cases of Abscess of the Liver. P. W. Bassett-Smith.
6 Liver Abscess, with Ten Cases. James Cantlie.
7 *The Pathology of Acute Rheumatism and Allied Conditions. E. W. A. Walker and J. Henry Ryffel.

1. **Disposal of Excreta in the Tropics.**—Simpson advocates the use of water-tight and isolated cesspools where surface contamination is impossible and subsequently, after fermentation, the employment of the excreta for fertilization and gives his reasons. In the early stages the excreta are protected from flies, and in the feces of vegetable eaters is a large amount of undigested vegetable matter and cellulose which are more thoroughly broken up by anaërobic than by aërobic organisms.

In the subsequent discussion Rogers gives the results of experiments as to the effect of the septic tank on the life of various pathogenic organisms and, as far as his results go, they show that the septic tank process is inimical to most of the pathogenic organisms, including the cholera bacillus, staphylococcus, streptococcus, typhoid bacillus, Malta fever germ, and excepting only the anthrax bacillus. On the other hand even small quantities of effluent from the tanks showed both the *Bacillus enteritidis sporogenes* and streptococci, and its subsequent discharge through filters and then over a small piece of land with subsoil drainage failed to free it from these organisms and from a large number of colon bacilli. It would not be safe, therefore, to allow the water to contaminate water used for drinking.

2. **Sprue.**—Bassett-Smith disagrees with the American surgeons in not considering sprue a sequel of dysentery in all cases. He reports cases with blood findings and notices particularly the characteristic anemia which is close to that of pernicious anemia except that the hemoglobin value of the cells is also reduced and megaloblasts are not present. The cardinal points in coming to a diagnosis are irregular and chronic diarrhea with dyspepsia causing flatulent distension of the abdomen, the occurrence of fermenting offensive stools which in chronic cases become pasty, clay-colored and very abundant, progressive emaciation, extreme secondary anemia, and changes in the buccal mucous membrane with or without the production of an aphthous condition.

4. **Trypanosomiasis and Sleeping Sickness.**—The discussion on trypanosomiasis was opened by Patrick Manson, who notes that the disease is milder in the native than in the European. In the latter there is irregular undulant fever, peculiar circinate erythema and such eye symptoms as choroiditis and iritis. Manson objects to the trypanosoma being considered the germ of sleeping sickness.

Christy describes the distribution of sleeping sickness along the Northern and Western portion of the Victoria Nyanza Lake showing that it is rapidly advancing, though its infecting area seems to be confined to within ten miles of the lake shore and corresponds rather with the tsetse fly distribution.

Dutton and Todd find that the disease extends well up the Gambia River. It seems to be mild in the natives. Its diagnosis is clinically impossible. Experimental inoculations of animals show the horse parasite to be more pathogenic than the human variety.

7. **Rheumatism.**—Walker and Ryffel refer to an earlier communication by Walker and Beaton in which they reported the discovery of a micro-organism associated with acute rheumatism to which they venture to give the distinctive term *Micrococcus rheumaticus*, differing in many respects from other streptococci. Attention is here called to the production of formic acid by this micrococcus and the following provisional statements are made:

1. The *Micrococcus rheumaticus* produces formic acid in very considerable quantity, and also at least one other acid of the fatty

acid series. 2. The acid (formic) is present not only in the filtered cultures of the organism, but it can also be extracted from the bodies of the micro-organisms themselves. The washed micrococci contain, in addition to formic acid, at least one of the higher fatty acids. 3. Ordinary streptococci, such as a streptococcus isolated from a case of erysipelas, only give rise to a small quantity of formic acid, so far as our experiments at present go. This observation may constitute a means of differentiation between the rheumatic micro-organism and other members of the streptococcus group. 4. Formic acid and probably another fatty acid are present in the urine during the course of acute rheumatism in appreciable amounts. From normal urine formic acid is either altogether absent or occurs in traces only. 5. Under the salicylic acid treatment of rheumatic fever formic acid is, so far as we have been able to investigate, reduced in quantity in the urine of the patient. 6. Formic acid is obtainable from the tissues of an animal (rabbit) suffering from acute arthritis due to the inoculation of the micro-organism.

They think formic acid is formed by the micro-organism, by oxidation of sacrolactic acid into formic and acetic acids. They remark that the connection of formic acid with the activity of the rheumatic micrococcus is of considerable interest in relation to the notion prevalent in county districts that bee-keepers are free from rheumatism. These individuals must necessarily be frequently subjected to the action of formic acid.

The Lancet, London.

September 19.

8 *The Artificial Feeding of Infants. Robert Hutchison.
9 A Case of Abscess of the Temporo-sphenoidal Lobe Presenting Symptoms of "Amnesic Aphasia"; Operation; Recovery. R. Lawford Knaggs.
10 Case of Aneurism of the Abdominal Aorta Treated by the Introduction of Silver Wire, with a Description of Instruments Invented and Constructed by Mr. G. H. Colt to Facilitate the Introduction of Wire in Aneurisms. D'Arcy Power and G. H. Colt.
11 A Case of Malignant Disease Following Splenic Anemia. C. H. Sedgwick.
12 A Case of Subacute Indurative Pneumonia. O. K. Williamson and J. G. Emanuel.
13 *On the Occurrence and Significance of Cutaneous Hyperalgesia in Appendicitis. James Sherren.
14 Defects in the Auricular Septum. Frank E. Tylecote.
15 *Tuberculosis and Cancer in New Zealand. W. J. Barclay.

8. **Infant Feeding.**—Hutchison summarizes as follows:

1. The first essential . . . is a definite plan on which to go and to avoid haphazard procedures. 2. Diluted cow's milk, condensed milk and peptonized milk may be regarded as the positive, comparative and superlative of digestibility respectively, and should be tried in that order until the digestive power of the child is suited. . . . 3. Periodic weighing of the child is the only test of the success or failure of the food selected. 4. In cases in which even peptonized milk fails to give good results great benefit often follows the administration of grey powder, even in cases in which there is no reason to suspect a syphilitic taint. 5. In spite of all care in the use of the above methods there remains a residuum of cases in which progressive wasting persists. Many of these seem to be babies who are unable to digest the casein of cow's milk in any form. 6. In such a case one should try to procure a wet nurse for the child, and, failing that, one must eliminate casein from the diet by making whey the basis of the feeding mixture. 7. The use of a patent food as the sole article of diet for a baby is rarely if ever necessary so long as cow's milk can be obtained, either fresh or condensed. 8. If a child is unable to digest much cow's milk it is often worth while to try the effect of adding a little starchy food to the diet even at an early age, for inability to digest milk appears to be sometimes accompanied by an unusual capacity for the conversion of starch.

13. **Appendicitis.**—Sherren notes the significance of cutaneous hyperalgesia in appendicitis and illustrates it by schematic diagrams and cases. He concludes:

1. Cutaneous hyperalgesia is probably present at some time during all first attacks of appendicitis, except, perhaps, in the fulminating type, and depends on tension within the appendix. 2. It may be absent in attacks after the first, if the first attack was of sufficient severity to destroy nerve tissue in the wall of the appendix. 3. When present in attacks subsequent to the first it often persists long after all other signs of the disease have gone, owing to the tension within the appendix being kept up by the presence of a stricture. 4. It gradually disappears during convalescence as the other signs of the disease clear up. 5. Disappearance of cutaneous hyperalgesia without improvement in the general condition of the patient is a sign of perforation or gangrene of the appendix, and should be a signal for immediate operation. 6. The presence of cutaneous hyperalgesia is no contraindication to operation. Abscesses may form and general peritonitis may develop while it is present. 7. Its absence, on the other hand, is of great importance. Absence of cutaneous hyperalgesia, the patient coming under observation early in the first attack of appendicitis, is a sign of gangrene of the appendix unless the case is obviously a mild one and the patient is rapidly getting well. 8. Cutaneous hyperalgesia is, as a rule, absent in cases of abscess of the appendix. 9. The age of the patient and the position of the appendix have no influence on the cutaneous hyperalgesia. 10. It is occasionally of use as an aid to the diagnosis of appendicitis.

15. **Tuberculosis and Cancer in New Zealand.**—Barclay gives a statistical study determining certain facts: 1. The death rate from tuberculosis is exceedingly low in New Zealand—only about one-half the English rate. 2. Cancer prevalence, on the other hand, seems to be practically equal to that in England. He concludes that the conditions favoring cancer are present to an equal extent in both countries.

Indian Medical Gazette, Calcutta.

September.

16 *Extraction of Cataract in the Government Ophthalmic Hospital, Madras. T. H. Pope.
17 Some Cases of Labor in Heart Disease. Clayton Lane.
18 An Account of a Race of Idiots Found in the Punjab, Commonly Known as "Shah Daula's Mice." G. F. W. Ewens.
19 *Further Notes on Experiments on the Pathology and Treatment of Malignant Disease. E. R. Rost.

16. **Cataract.**—Pope has experimented with avoiding bandaging of the eye after operations, simply protecting it by a double eye-shade tied firmly around the head. By raising the head the patient is able to see. From his experience with wounds of the cornea, he thinks it a necessity to avoid bandaging in all cases of uncomplicated inflammation and injuries of the cornea and conjunctiva and to treat them simply by thorough cleansing with antiseptic washes followed by the application of an effective shade. The procedure has shown itself to be comparatively free from objections in hospital practice and he gives a history of the first twelve cases. The operation he employs for cataract is what is called the Drake-Brockman method. Instead of rupturing the capsule by a cystotome, Drake-Brockman used a Bowman's stop-needle and began by tearing the capsule of the lens. A full account was given in the *Indian Medical Gazette*, June, 1901.

19. **Cancer.**—Rost has seen benefit from the following treatment: A strict diabetic diet, two ounces of salt daily, rubbing salt ointment into the body and the local application of dilute hydrochloric acid, 2 per cent. In several cases there was a daily rise of temperature which gradually subsided as the treatment progressed. In some cases edema occurred around the growth, but this also subsided as the treatment was continued.

Presse Medicale, Paris.

20 (No. 71.) Les albuminuries curables. Albuminuries fonctionelles. G. Lyon.
21 La formation de la lymphe. M. Loeper.
22 L'alcool dans l'alimentation. E. Poher.
23 (No. 72.) Le traitement électrique de la constipation habituelle et de la colite muco-membraneuse. L. Delherm.
24 Grippe et paludisme à Madagascar. Fontoynont.
25 Les indications op. dans le traitement de l'appendicite. M. Gaudin.
26 *La céliotomie abdominale sub-médiane. L. Longuet.
27 (No. 73.) Les délirants des hôpitaux. E. Régis.
28 (No. 74.) Glossite et stomatite à streptocoques observées à Madagascar. Fontoynont.
29 Actinomycose. L. Dor.
30 Panaris actinomycosique. L. Thévenot.

26. **Submedian Laparotomy.**—Longuet advocates what he calls submedian abdominal celiotomy, claiming that it is the shortest route, the line of the incision is always straight and rectilinear and is in accordance with the surgical principle to utilize a muscle as a support. Biologically it offers a greater vitality on the part of the lips of the wound than any other incision; the entire muscular functions of one side of the abdominal wall are left intact; the preservation of the linea alba confers greater solidity, and the interposition between the tiers of the suture of a sound, vigorous and intact muscle guarantees against post-operative hernia. In case of emergency operations in which haste is imperative the ordinary incision may be preferable, but for gynecologic operations in general he regards the submedian as a great improvement over the median laparotomy. His incision is about 12 cm. long, on a radius from the top of the symphysis, close to the median line at the base and diverging from it to about 3 cm. as the umbilicus is approached. The rectus has a tendency to retract to one side and is drawn further out of the way.

Revue de Chirurgie, Paris.

Last indexed page 639.

31 (XXIII, No. 8.) *De quelques complications de l'anus contre nature et de leur traitement. H. Géraud.
32 *De la dilatation ampullaire des veines. P. Guibal. (Commenced in No. 6.)
33 (No. 9.) Abcès tuberculeux intrahépatique et périhépatite tuberculeuse. M. Auvray.
34 Note sur un cas de rétraction de l'aponévrose palmaire consécutive à une fracture de l'avant-bras. C. Féré and R. Demanche.
35 *Contribution à l'étude du rheumatisme tuberculeux dans les cas de lupus willanique ou de tuberculides. Bouveyron.
36 *Les tumeurs du corpuscle rétro-carotidien. P. Reclus and M. Chevassu. (Commenced in No. 8.)

31. **Complications of Artificial Anus.**—Géraud observes that if prolapse of the mucosa through an artificial anus becomes annoying, the protruding mucosa should be excised. He has found 25 cases on record in which there was prolapse of the intestine through the anus, and describes 2 rather remarkable unpublished cases. He cautions that treatment should be prophylactic. The patient should be told to defecate reclining and without effort on the part of the abdominal muscles. Violent efforts, fatigue and dietary indiscretions should also be avoided. He regards the Saxtorph appliance as best adapted to allow passage of gases while preventing prolapse. In one of his personal cases there was eversion or evagination of the cecum, ileo-cecal valve and the orifice of the appendix. The protruding mass was fully 15 cm. long and every twenty-five to thirty minutes the ileo-cecal valve dilated and allowed the passage of some soft matters, similar to what is observed in the ureters emptying into the bladder. The mere fact of drinking a glass of milk at any time during the day caused evacuation of matters. Peas and beans emerged the day after they were eaten, apparently unmodified. In his second case there was double prolapse of the sigmoid flexure with a strangulated hernia of the small intestine into the prolapsed intestinal mass, thus forming an enormous T protruding from the artificial anus with a loop of small intestine incarcerated in the stem. Treatment consisted in removal of the loops of both intestines and the square of abdominal wall containing the anus. The specimen thus obtained is now in Terrier's museum. The protruding portion of the large intestine measures 20 cm. in length by 5 in diameter, and on the inner side four stumps of intestine project from the anus.

32. **Dilatation of Veins.**—Guibal does not believe in abstention from treatment in case of ampullary dilatation of the veins, as there is always danger of infection and coagulation of the contents. The possibility of fatal embolism has been proven by several instances on record, as also of hemorrhage and suppuration. Elastic stockings are useful for elderly persons or those with sedentary habits or who refuse operative treatment. Under other conditions, especially when the cystic dilatation is increasing or is causing serious trouble or is complicated with phlebitis, the tumor and adjacent veins should be excised between ligatures far into normal tissue. This puts an end to the tumor and benefits or cures the superficial varices by suppressing the reflux of blood. He reviews a material of 52 cases collected in the literature or personally observed, giving the particulars of each case.

35. **Tuberculous Rheumatism.**—Bouveyron studies the subject of the rheumatism complicating cutaneous tuberculous lesions to which attention has not previously been directed. He has observed 14 cases of rheumatism in persons affected with lupus with or without accompanying pulmonary tuberculosis. They were noted among 49 cases of lupus in his service during the last six months. There were no evidences of rheumatism among the 14 cases of lupus in children, but it was pronounced in 5 of the 12 men with severe lupus and in 7 of the 18 women. Rheumatism was thus manifest in 12 out of 30 cases of rebellious and mutilating lupus in adults, but was rare in adults with mild forms of lupus. The arthralgic form, with or without effusion or tumefaction of the joint, was most frequent, occurring in 8 out of the 12. These arthralgias are usually moderately painful, torpid, tenacious and rebellious to all the classic methods of treatment. They sometimes disappear for a time and then recur in the same or another joint. They may improve without apparent cause or under the influence of a febrile affection. The condition of the accompanying lupus does not seem to affect them nor the general health of the individual in question. The ostealgic or hyperostosic form was encountered only in women, and in 4 out of the 7 cases in this class. Two other women with tuberculides also exhibited painful hyperostosis, which raises the proportion to 6 out of 9. In one case of ostealgia of the two femurs there did not seem to be hyperostosis. In 3 out of 12 cases the rheumatism assumed the form of hydrarthrosis. In one of his 2 cases of tuberculides the rheumatism assumed the form of multiple painful hyperostosis, and in the other of hyperostosis, spina ventosa and polyarthritis so acute and painful that it simulated true rheumatism. The general condition of both these patients was very poor. Bouveyron adds that the limitation, recurrences and fixity of the rheumatismal manifestations suggest some local germination and reviviscence rather than general toxic action from a distance. Poncet, who first described the rheumatism of tuberculosis, used to say that there is nothing to prove that the action of the tubercle bacillus is restricted to the formation of granulations, tubercles and fungous growths. This seems to be accepted as an article of faith, but no one to date has demonstrated that this anatomo-pathologic signature is absolutely necessary, and that Koch's bacillus may not determine an ordinary inflammatory process when ensconced in the bone or synovial membranes.

36. **Tumors of the Intercarotid Body.**—Reclus and Chevassu describe a case of a tumor which shelled out from the bifurcation of the common carotid without difficulty, and state that it is the eleventh on record. They remark that the possibility of a tumor in this intercarotid body should be borne in mind when a single tumor is observed in the carotid region, rather soft, pulsating without expansion, and developing very slowly, near and above the thyroid gland. Such tumors are always solid and perivascular. In 4 of the published cases the tumor was differentiated before operation. The only other neogrowths which could be confounded with it are an aberrant thyroid tumor and a mixed branchioma. The former has never been discovered at the carotid bifurcation and the latter is always more superficial and harder. In only 2 of the cases on record was it possible to dissect out the tumor without injury to the vessels. In the 8 others the entire fork of the carotid was resected and 2 of the patients succumbed, one from hemorrhage and the other from broncho-pneumonia ascribed to section of the vagus. The 6 patients who recovered all presented disturbances of various kinds. One of Maydl's patients had hemiplegia the fifth day with aphasia, the latter not entirely vanishing after four years. His second patient complained of a constant oppression in the back of the throat, and in his third patient the voice has been hoarse and nasal, with inability to swallow solid food readily, and a tickling in the throat which induces constant coughing. The pneumogastric and sympathetic had both been severed in this case. The patient has also occasional vertigo, with deviation of the tongue and contraction of the pupil. Gersuny's patient has still a slight paresis of the left vocal cord. In one of the 2 cases reported from Russia the pneumogastric had been divided, but further details are not given, and in the other there was deviation of the tongue and one corner of the mouth. These after-disturbances condemn extensive resection of the nerves and vessels on account of a tumor in the carotid gland. These growths are probably not malignant: they may exist for a long time, possibly indefinitely, without inducing serious symptoms or even discomfort, and resection of the nerves and vessels is a remedy worse than the original evil. Resection may be found necessary to conclude the operation, and hence the writers do not advocate operating unless the surgeon's hand is forced by severe functional disturbances. They give the particulars of the series mentioned, with cuts of some of the cases. They show that some of the smaller tumors were more intimately adherent to the vessels than the larger ones. (Scudder also reports and illustrates a case in the current number of the *Am. Journal of the Medical Sciences*. He removed the adherent vessels with the tumor.)

Semaine Medicale, Paris.

37 (No. 36.) Ictères bénins post-opératoires. R. de Bovis.
38 Letter from America: La prostatectomie aux Etats-Unis. F. Munch.
39 What Do We Understand by "Banti's Disease"? L. Cheinisse.—Que faut-il entendre sous la dénomination de "maladie de Banti"?

Archiv f. path. Anat., Etc. (Virchow's), Berlin.

Last indexed page 470.

40 (CLXXIII, No. 2.) *Disturbances in Development of Kidney. E. Meyer.—Ueber Entwicklungsstörungen der Niere.
41 *The Fetal Giant Kidney and Its Relation to the History of the Development of the Kidney. G. Schenkl.—Die fötale Riesenniere, etc.
42 *Arrested Development of Kidney. K. Beck.—Ueber Befunde an Nieren mit gehemmter Entwicklung.
43 *Accessory Pancreas. C. Thorel.—Histologisches über Nebenpankreas.

44 *Malakoplakia of the Bladder. v. Hansemann.—Ueber Malakoplakie der Harnblase.
45 Fall von akuter Leukämie. A. Januszkiewicz (Kiev).
46 Fall von multiplem Myelom mit diffuser Verbreitung im Knochenmark. A. J. Abrikosoff (Moscow).
47 Ueber die Histogenese des Netzhaut-Gliums (of glioma of retina). V. Scaffidi.
48 Fall von Sarkom der Dura Mater und über dessen Beziehungen zu einem vorangegangenen Trauma. L. Lichtwitz (Breslau).
49 Fall von congenitaler Missbildung des Herzens. E. Schreiber.
50 Congenitale (?) epitheliale Fistel des Scrotum. W. Pinkus.

40 to 42. **Disturbances in Development of Kidney.**—Meyer discovered a peculiar irregular appearance in the kidneys of a female infant nine weeks old, who presented other deformities. Parts of the kidneys seemed to be normal, while in other parts there were no convoluted tubules to be found, although the Malpighi corpuscles and the straight tubules were normal. He also examined pathologic kidneys of calves and kidney cysts in children and adults. The findings in all corroborate the assumption that the canal system of the kidney develops from two separate foundations or *Anlagen*. The researches of Schenkl and Beck at the veterinary pathologic institute at Berne also confirm this view.

43. **Accessory Pancreas.**—Thorel found the accessory pancreas in the stomach or intestine in 3 cases; in one it was double, and one pancreas was in the jejunum and the other in its mesentery. He has encountered 7 cases of accessory pancreas in all, and in each one, with the exception of the last mentioned, the organ had an opening into the intestine. Langerhans' islands were absent in nearly every one. He ascribes the origin of these accessory organs to displacement of germinal tissue.

44. **Malakoplakia of the Bladder.**—Hansemann found a number of peculiar, yellowish, flattish fungus-like growths in the mucosa of the bladder and of the dilated ureters in the 2 cases described. They had not caused any clinical symptoms, although some were ulcerated and confluent. He does not know how to classify the affection and proposes the descriptive term of malakoplakia vesicæ, from the Greek word malako, soft, and plakia, patch.

Centralblatt f. Gynaekologie, Leipsic.

Last indexed page 642.

51 (XXVII, No. 30.) *Fall von gleichzeitige extra-uterine und intra-uterine Gravidität. Geyl (Ginneken).
52 (No. 31.) Zur normalen Struktur des Syncytiums. O. O. Fellner (Schauta's clinic, Vienna).
53 *Large-sized Funnel Pessaries Against Genital Prolapse. Schatz (Rostock).—Trichter-Pessarien, etc.
54 *Is Injury of the Round Ligament in Herniotomies Followed by Retrodeviation of Uterus? S. Goldner.—Hat die Verletzung des Lig. rotund. bei Herniotomien Retrodeviationen des Uterus zur Folge?
55 (No. 32.) *Drawbacks of Raising the Pelvis. K. Franz (Halle).—Nachtheile der Beckenhochlagerung.
56 *Zur Kenntnis der Tuben-Gravidität. E. G. Orthmann.
57 *Apparatus for Supply of Sterile Water at All Times. N. S. Ivanoff (Moscow).—Apparat zur Gewinnung und Ausnutzung sterilen Wassers.
58 (No. 33.) *Detachment of Vagina and Muscular Floor of Pelvis as Cause of Prolapse. Schatz (Rostock).—Ueber die Abreissungen der Scheide und des musk. Beckenbodens als Ursachen von Genitalprolaps.
59 Two High Forceps Applications. T. v. Wenczel (Budapest).—Zwei hohe Zangen-Operationen.
60 Beitrag zur Behandlung des Ileus mit subkutanen Strychnin-Injektionen. K. Jaffé (Hamburg).
61 (No. 34.) Changes in the Ovaries Accompanying Vesicular Mole. L. Pick.—Zur Frage der Eierstocksveränderungen bei Blasenmole.
62 Hysterotomia vaginalis anterior infolge hochgradiger Rigidität der Cervix, compliziert mit einem Riss durch unteres Uterin-Segment und Parametrium. W. Ruhl.
63 (No. 35.) Zur Technik vaginaler Operations-Methoden. F. Mainzer.
64 Two Cases of Rupture of Uterus. E. Puppel.—Zur Lehre von den penetrierenden Zerreissungen der weichen Geburtswege intra partum.

51. Twin **Pregnancy Intra- and Extra-Uterine.**—Geyl remarks that not a single case similar to the one he describes was found by G. Zinke in his compilation of 88 cases of simultaneous intra- and extra-uterine pregnancies during the last two centuries. The case is distinguished by the fact that the fetus in the uterus died about the third week of its development while the extra-uterine fetus, with placenta attached to the floor of the pelvis, continued to develop normally until about the fourth month. The patient succumbed to hemorrhage.

53. Funnel **Pessary.**—Schatz proclaims that his funnel pessaries have rendered excellent service in more than 300 cases, and possess several advantages over all others in use. They are shaped like a funnel with all the edges well rounded, but are not hollow, having merely a small passage through the center to allow escape of secretions. They separate vertically into halves and each half is inserted separately. The halves fit together spontaneously and support the parts in genital prolapse and in cases of urinary incontinence. The patients soon learn to insert and remove the pessary themselves, as he insists on its being removed every night, the vagina cleansed, the pessary sterilized and replaced next morning. He has the pessaries made in ten sizes to fit all conditions, the stem the same length in all.

54. **Is Injury of Round Ligament in Herniotomies Followed by Retrodeviation?**—Gold answers this question in the negative.

55. **Drawbacks of Raising the Pelvis.**—Kraske has stated that the Trendelenburg position caused a tendency to paralysis of the anterior tibialis, and to emphysema of abdominal walls, both of which can be easily avoided. He further asserted that he had witnessed severe disturbances in circulation in 2 corpulent subjects who had exhibited symptoms of myocarditis previous to the operation. In a few other exceptional cases he has observed intestinal occlusion, aspiration of stomach contents and apoplexy, all of which he attributed to the raising of the pelvis. Franz reports that none of these mishaps have been noted at the Halle clinic in the course of 745 laparotomies, but he calls attention to a disadvantage of the position hitherto unappreciated. This is the diminished abdominal respiration during the time that the pelvis is raised. The respiration in the lungs does not compensate for it, as he shows by respiration curves, and consequently the patient suffers from abnormally deficient respiration. He further announces that he has found that bronchitis was four times more frequent after an ether nacrosis when the operation had been performed with the pelvis raised than when the patient had been simply reclining. The cases of bronchitis after chloroform narcosis were likewise more numerous, but not to the same extent as with ether. The subject does not get his normal supply of oxygen while in the Trendelenburg position, and this must aid in depressing the general condition. This fact may even explain why patients bear a vaginal operation so much better than a laparotomy.

56. **Tubal Pregnancy.**—Orthmann reviews his experience with 45 cases, and relates the particulars of 8 particularly interesting ones. Four of the total number died. In 2 the tubal pregnancy occurred more than once.

57. **Apparatus for Sterile Water Supply.**—The apparatus consists of a double cylinder somewhat on the principle of a Russian samovar or tea urn. It is made for convenient handling with a capacity of about a quart and a half, but can be as large as required. The spout is long and turns up and over so that the nose of the spout fits into the apparatus near the top and is sterilized with the water. When ready to use the spout is pulled down and can be adjusted at any angle by a thumb screw. The water is heated with live coals like a samovar or by standing the apparatus on the stove.

58. **Lacerations of Vagina and of Muscular Floor of Pelvis as Cause of Prolapse of Uterus.**—Schatz proclaimed as long ago as 1883 that lacerations of the muscular floor of the pelvis during childbirth were a frequent cause of prolapse later. He states that no one paid any attention to his remarks on the subject except in North America. In the meantime he has collected further data and now announces that his assertions were not sweeping enough, and that detachment of the vagina is a certain and frequent source of prolapse. He describes the anatomic conditions in detail, showing that the true conditions do not seem to be appreciated in the text-books. During childbirth the vagina is liable to become detached either by the bearing down of the woman or by the direct action of the emerging fetus. The anterior wall of the vagina usually escapes, but the posterior wall is liable to become detached, and even to be slit in one or more places, and the muscular attachments are wrenched out, thus depriving the vagina of its power of transverse elastic contraction.

Deutsche med. Wochenschrift, Berlin and Leipsic.

65 (XXIX, No. 38.) *Zur Physiologie und Pharmako-Dynamik der Kieselsaure (silicic acid). H. Schulz.
66 Mode of Dissemination of Diphtheria. K. E. Büsing.—Zur Verbreitungsweise der Diphtherie.
67 Roller Forceps in Treatment of Trachoma. J. Hoppe (Cologne).—Die Trachom-Behandlung mittelst der Knapp'schen Rollzange.
68 Ueber ammoniakalische Reaktion des Harns bei Phosphaturie, sowie über Phosphaturie und Ammoniurie als objektive Symptome der Neurasthenie. A. Freudenberg.
69 Conclusion of Report on Foot-and-Mouth Disease. Loeffler.

65. **Physiologic and Pharmacologic Action of Silicic Acid.**—Schulz protests against the general assumption that silicic acid is a comparatively insignificant substance from the standpoints of physiology and pharmacology. The respiration and vascular system did not seem to be affected, but ingestion of small amounts of silicic acid caused marked derangement of the nervous system. Headache occurred, general or local, sometimes accompanied by vertigo. The eyes burned and smarted. In some of the tests the subjects complained of somnolence with inability to concentrate their attention; others became nervous and irritable; the gait was uncertain and the hands trembled. A cutaneous reaction resembling acne pustules or a papulous exanthem was also noted, and hyperidrosis with acid sweat and desquamation. The hair and beard displayed a tendency to drop out, and the nails seemed to grow faster. The digestive tract reacted to the acid with flatulence and colic, rumblings and increased desires for stool. Constipation alternated with diarrhea, and the stools were remarkably yellow, both in man and animals. There was no diuresis except when the acid had been taken for a long time. Polyuria developed with smarting during urination in some of the subjects, while in others there was retention, the urine concentrated and reddish until diuresis became established. In all the tests the legs felt as if weighted with lead and were easily fatigued. Dull pains were also noted in the tibiæ, increasing during rest and subsiding after exercising. The joints also ached and were stiff, suggesting the symptoms of lead-poisoning, etc.

Muenchener med. Wochenschrift, Munich.

70 (L, No. 35.) *Beiträge zur Leukocyten-Frage. E. Meyer.
71 Zur Diagnose chronisch nephritischer Prozesse. Schwarzkopf.
72 *Absence of Tube-Casts in Urine of Nephritics. A. Treutlein.—Ueber das Fehlen von Zylindern im Urin von Nephritikern.
73 *Death of Newly-born from Forensic Standpoint. M. Hofmeier.—Ueber Todesursachen bei Neugeborenen während und gleich nach der Geburt mit Rücksicht auf ihre forensische Bedeutung.
74 Care of the Prematurely Born. O. Pilano (Würzburg).—Ueber die Pflege und Ernährung frühgeborener und schwächlicher Säuglinge in den ersten Lebenstagen.
75 *Zur Therapie der Placenta previa. Hammer (Würzburg).
76 *Determination of Outlines of Heart on Left Side. H. Engel (Nauheim).—Ueber die Bestimmung der linken Herzgrenze.
77 *Intravesical Segregation of Urine. Keydel.—Die intravesikale Trennung des Urins beider Nieren.
78 Simple Walking Apparatus. H. Lossen (Darmstadt).—Ein einfacher Gehstützapparat.
79 *Study of Specific Gravity of Living Human Being. F. Jamin and E. Müller.—Ueber das spec. Gewicht des lebenden Menschen, mit bes. Berücksichtigung eines für klinische Zwecke brauchbaren "specifische Equivalent-Gewichts." (Concluded from No. 34.)

70. **Chemical Properties of Leucocytes.**—Meyer gives the details of several cases of acute and chronic leukemia, and then relates the results of chemical tests of the blood from these patients. Fresh, centrifugalized blood did not respond to the guaiacum test at all, but if distilled water was added to the blood before the tincture of guaiacum, the fluid turned blue at once. Not a trace of the guaiacum reaction could be obtained with the blood of the patient with acute lymphatic leukemia nor with extracts of human and animal thymus and lymph glands. Pus did not give the reaction until it had stood for some time or had been diluted with water. For these and other reasons which he mentions he asserts that there can be no doubt that the polynuclear and probably also the mononuclear neutrophile cells of the blood contain a substance which can be dissolved out by water, and which turns the guaiacum tincture blue in the absence of peroxids. The substance in question is entirely lacking in the lymphatic apparatus. He accepts it as an intracellular oxidating ferment. It does not give the reaction after boiling, but the response is positive again if hydrogen dioxid is added to the boiled fluid. It has also the property of oxidizing phenolphthalin in alkaline solution into phenolphthalein. Phenolphthalin is the product of the reduction of the latter, and is a colorless, soluble powder. If an aqueous solution is added to the solution of the above ferment or to the diluted blood of a myelogenic leukemic patient, the fluid turns a permanent purple. This reaction parallels the findings of the guaiacum test. Both of these tests may be positive with blood in high neutrophile leucocytosis. In several cases of pneumonia with 19,000 leucocytes, both of these reactions were positive, the phenolphthalin reaction most pronounced. But with diminishing numbers of leucocytes they subsided and were no longer to be distinguished when there were only 15,000 to 16,000. It is thus established that entirely normal neutrophile leucocytes contain the oxidating ferment, and it is thus not the prerogative of pus cells and of the cells in myelogenic leukemia alone. He adds that the simple phenolphthalin test not only gives an approximate estimate of an existing hyperleucocytosis, but it indicates besides the kind of leukemia present. He is now studying to determine whether it may not serve for quantitative determination of the leucocytes. The results of this research on the chemical properties of the leucocytes indicate that the terms acute lymphatic leukemia or lymphocytemia are correct. He describes in conclusion studies of the response to neutral red, and although they were meager, yet they suggest that it may be possible to detect in the blood the destruction of leucocytes evidenced by excessive elimination of urea in the urine.

72. **Absence of Tube Casts in Nephritis.**—Treutlein announces on the basis of a case observed and considerable experimental research, that the colon bacillus has the property of inducing destruction of the tube casts. Consequently, severe nephritis may occur without any casts being found in the urine. The colon bacillus may induce this "cylindrolysis" by its presence in the bladder or in the kidney itself. The ferments of the bacillus are unable alone to accomplish it.

73. **Sudden Death in the Newly-Born.**—Hofmeister describes 3 cases to show the liability to error in these cases. The births occurred under his eyes and only the most careful examination disclosed even a possible cause for the death of the child just before or after delivery. In one the microscope showed minute changes in heart and lungs, possibly rendering them unable to adapt themselves to extra-uterine life; in another some of the blood vessels in the placenta were obliterated; in the third, meconium was found in bronchi and lungs and yet the child was stillborn. The deaths might easily have been unjustly ascribed to the mothers under other circumstances.

75. **Treatment of Placenta Previa.**—Hammer reviews the experience of the Würzburg clinic with placenta previa, 107 cases in all. In 19, the records mention placenta centralis; in 70, previa lateralis, and in 18, low placenta previa. The mortality was 7.47 per cent. of the mothers and 54.2 per cent. of the children, but the maternal deaths were due to eclampsia, sepsis, lysol poisoning or air embolism in 4 cases and 3 succumbed to hemorrhage from atony of the uterus post-partum. The experience with the metreurynter introduced inside the fetal membranes has been very favorable.

76. **Outlining Left Heart.**—Engel recommends the use of a hard rubber plessimeter for percussion. He starts from a mark on the upper part of the heart outline, which can be easily determined by percussion to the left of the manubrium sterni. He then places the plessimeter rod on the mark with half its diameter projecting and by percussion determines the proper location of the rod which is likewise marked. By proceeding slowly in this way, advancing only half the width of the diameter of the rod at a time, it is possible to outline the heart with great accuracy. A stick of sealing wax will answer for the rod if necessary. His findings on more than 100 subjects were always confirmed by other tests and anatomic examination.

77. **Intravesical Segregation of Urine.**—Keydel reviews the various instances of application of the Luys or Cathelin intravesical urine separators as published by various other writers, and adds 4 from his own experience. He has collected 25 published since the authors' communications, and in

by far the largest majority the results were eminently satisfactory, while in the hands of the authors the results have always been brilliant and their list now numbers hundreds. Their success is probably due to their careful discrimination of the subjects, "asking the permission of the bladder," and remembering that the organ is not so sensitive to contact as to distention.

79. **The Specific Gravity of the Living Human Being.**—Jamin and Müller have been conducting laborious researches at Erlangen to determine the exact specific gravity of different individuals, the quotient of weight and volume. They constructed for the purpose a tall tub, a cylinder nearly full of water and containing a convenient seat. The subject, entirely naked, steps from a platform into the cylinder and seats himself. Then at a given moment he slips down into the water until it covers him entirely and the displacement of the water is registered outside. In order to make the procedure less annoying they finally modified it by having the seated subject merely lean back or forward until the head was submerged to a line from the chin to the roots of the hair. This was accepted as the approximate figure and used for calculations. As it does not pretend to be as exact as complete submersion they call it the "specific gravity equivalent," and have found it as useful for purposes of comparison as the correct figure would be. They have determined this equivalent for 118 persons. It is highest in youth and gradually declines from 1130 at 8 years to 1061 between 50 and 90 in male subjects, and from 1106 between 10 and 15 to 1065 between 50 and 90 in female subjects. The average for all ages and both sexes is 1088 in health, and 1074 in pathologic conditions. The equivalent in obesity was only 1049, 1037 and 1004 in 3 obese men; the normal equivalents for their age would have been 1061, 1066 and 1066. The value of the method lies in the information that it imparts in regard to the composition of the body, which has hitherto escaped our methods of weighing, etc., and will prove particularly valuable in case of obesity and dropsy. The investigations were repeated a number of times on the same subject in many instances, and the variations in the findings were found to be almost imperceptible for the same individual under similar conditions.

Therapie der Gegenwart, Berlin.

Last indexed page 140.

80 (XLIV, No. 6.) *Roentgen-Verfahren und interne Therapie. de la Camp.
81 *Hemorrhage from and Pain in Kidney. W. Klink.—Nierenblutung und Nierenschmerz.
82 *Hot-Air Treatment of Biliary and Renal Lithiasis. R. Sachs (Carlsbad).—Zur Behandlung von Gallen- und Nierenstein.
83 *Internal Affections and Sudden Death After Healing of Infantile Eczema. M. Cohn.—Zur Frage der inneren Erkrankungen und plötzlichen Todesfälle im Anschluss an die Heilung eines Säuglingsekzems.
84 *Verwendung des Scopolamin bei Magenleiden (in gastric affections). M. Pickardt.
85 Great Value of Kussmaul's Method of Checking Excessive Menstrual Hemorrhage. G. Klemperer. — Kussmaul's Methode zur Stillung übergrosser menst. Blutungen.

80. **Aid of Roentgen Rays in Internal Medicine.**—De la Camp remarks that internal medicine has not profited very materially by the Roentgen rays to date except in clinical diagnosis in combination with other methods of investigation.

81. **Hemorrhage and Pains in the Kidneys.**—Klink has found 18 operations on record undertaken on account of renal hemorrhage on a nervous basis. In 14 other cases the operation was merely on account of pains in the kidney, and in 23 for both hemorrhage and pain. The results have been that 69 per cent. were cured, 5 improved and in only 5 per cent. did the operation fail to relieve. Nine, or 16 per cent., have died. As a contribution to the subject of neuropathic renal hemorrhage he describes the unpublished case of a man of 25, previously healthy, who noticed blood in the urine for four weeks after a violent attack of pain in the left kidney, removing to the right kidney the next day, and recurring occasionally since then. When the bladder was opened by a high incision blood was seen to drip from one ureter. No further intervention was attempted and the symptoms all vanished. The chloroform narcosis may have been a factor in the cure, or it may have been due to suggestion or to reflex action on the kidney.

82. **Hot-Air Treatment of Biliary and Renal Lithiasis.**—Sachs illustrates an apparatus which he has devised for the application of a stream of superheated air to the kidney or liver region. The air is focused on the spot by a funnel arrangement. The results obtained have surpassed his most sanguine expectations.

83. **Internal Affections and Sudden Death After Healing of Infantile Eczema.**—Cohn discusses the subject and relates that a child of fifteen months exhibited signs of mild nephritis three days after the institution of treatment of chronic eczema of the scalp. Application of zinc oxid and oil, equal parts of each, cured the eczema, but was followed by symptoms of nephritis, edema of hands and feet, with albumin and casts in the urine.

84. **Scopolamin in Gastric Affections.**—Pickardt found that in 3 cases of excessive secretion of gastric juice, conditions were restored to normal by administration of .3 mgm. scopolamin bromid in water twice a day for four weeks. No by-effects were observed. The remedy proved especially beneficial in a case complicated by exophthalmic goiter.

Zeitschrift f. Krebsforschung, Jena.

86 (Vol. I, No. 1.) *Urogenital Cancer in Its Relation to the Cancer Problem. C. Posner.—Der Urogenitalkrebs und seine Bedeutung für das Krebsproblem.
87 *Ueber den Nachweis des Urobilins und seine Ausscheidung bei Carcinom. A. Braunstein.
88 *The Collective Cancer Inquiry in Spain. H. Leyden.

86. **Journal for Cancer Research.**—This periodical is published by the German committee for cancer research whose work has been frequently referred to in these columns. The name "cancer," *Krebs*, is deliberately chosen to express every kind of malignant tumor not connected with an infectious disease, thus excluding syphilids and actinomycotic tumors and the tumors of leukemia and pseudo-leukemia. The publication announces its scope as chiefly the clinical side of the cancer problem, with prophylaxis, treatment and casuistics, reviewing international literature, with abstracts, bibliographies and transactions of similar organizations elsewhere.

86. **Urogenital Cancer.**—Posner does not attempt to formulate any conclusions but merely reviews various aspects of the subject. He mentions that only 30 cases of supposed conjugal cancer, located on the genitalia, are on record, and these are not all above criticism. Contact infection and operative implantation are much more frequent. The theory of the origin of cancer from aberrant cells of germinal tissue is sustained by the frequency of cancer of the kidney in childhood. Rohrer found that in 37 out of 96 cases the patients were under 10 years of age. He emphasizes the fact, however, that scarcely any of them were carcinomata. The connection between metaplasia and carcinoma is becoming more probable. Halle, for instance, has noted preceding gonorrheal strictures in 12 out of 20 cases of carcinoma of the urethra, and others have reported cases of hard cancer developing on a basis of leucoplasia in the bladder. Still more evident is the connection between cancer and fistula of the urethra, tar, paraffin and chimney sweeping. Baum has demonstrated that chimney-sweeper's cancer was unknown in Hanover until wood was supplanted by coal for fuel. Posner knows of an unpublished case in which a worker in tar developed a typical cancer of the scrotum accompanied by one in the bladder. Since Rehn first called attention to the bladder tumors of men employed in anilin works, other cases have been reported until at present there are 6 authentic ones on record, 4 of carcinoma and 2 of sarcoma. Posner has seen a cancer in the bladder in a man employed in naphthol whose brother working beside him had stones in the bladder. Attempts to reproduce tumors of this kind in animals have always proved negative to date, and the spectrum did not reveal any changes in the blood. The animals died after inhaling the anilin, toluidin or nitrobenzol with symptoms of anemia and general prostration, in coma or in convulsions. Direct trauma seems to participate, if at all, in the etiology of carcinoma of the penis alone. Some authorities are inclined to regard injuries during birth as a factor in internal cancer. Posner is dubious in regard to the transformation of a benign into a malignant neoplasm, believing that the tumor was prob-

ably malignant from the start. Albarran found evidences of unmistakable cancer in 68 out of 88 cases assumed to be in this category. This applies also, Posner believes, to malignant recurrences after extirpation of a supposed benign growth, and also to growths in the vicinity of a cancer, and to the senile hypertrophy of the prostate, and to gynecologic affections. In conclusion, he refers to the fact that cancer of the bladder displays very little tendency to metastasis. Many cases run their entire course without a trace of enlargement of the glands or metastases.

87. **Urobilin with Carcinoma.**—Braunstein analyzes his findings in 22 cases of carcinoma. He found that it develops without essential urobilinuria if the neogrowth is not located in the liver and in the absence of fever or other complications. Urobilinuria appears when the liver is invaded by metastasis, when the carcinoma ulcerates and when a pneumonia or suppurative bronchitis develops secondarily. If the carcinoma is located in the liver there is pronounced urobilinuria and frequently bilirubinuria as long as the biliary passages are not compressed and the bile finds ready outlet. As soon as one of the biliary passages becomes obstructed the urobilin disappears completely from the urine, but the bilirubinuria persists.

88. **Cancer Inquiry in Spain.**—Leyden was physician to the German legation at Madrid at the time this collective inquiry was made, September 1, 1902. He states that the circulars were returned blank by 294 physicians, while 298 reported cancer patients. Of these, 116 were men and 182 women. Certain towns seemed to be entirely exempt from cancer. Not a single case was known to the eight physicians on the Canary islands, nor to the ten physicians in the Ceuta district in Africa.

Riforma Medica, Palermo.

89 (XIX, No. 28.) *Laringectomia totale per tumore maligno. A. de Cortes.
90 Sul significato clinico dell'eliminazione del acido glicosurico per le urine. R. Reale.
91 *Sulla funzione difensiva del grande epiploon. R. Pirone.
92 *Experimental Research on Organ Treatment. G. Ghedini.—Ricerche intorna ad alcuni estratti organici.
93 (No. 29.) *Caso di tubercolosi con leucemia. T. Prodi.
94 Sui nervi della glandola lacrimale. S. P. Allegra.
95 (Nos. 30 and 31.) *Sulla patogenesi delle ematemesi post-operatorie. C. Tonarekli. (Commenced in No. 29.)
96 *Ten Years of Abdominal Surgery by Prof. I. Tansini. G. Palleroni.—Contributo di chirurgia addominale praticata dal Prof. I. Tansini. (Commenced in No. 29.)
97 *Chemistry of Stomach. D. Pirrone.—L'acido cloridrico libero, la pepsina, il caglio nelle malattie dello stomaco e dopo la somministrazione di alcuni farmaci.
98 *Histologic Alterations Induced by Organ Juices and Cytotoxic Serums. C. Cafieri.—Sulle histolog. alterazione, etc.
99 *Studii sull vaccino. O. Casagrandi.
100 *Contributo sperimentale alla chirurgia della cistifellea (of gall bladder). L. Baldassari and A. Gardini.
101 (No. 32.) Contributo allo studio della fisiologia del rene (of the kidney). A. Ferrata.
102 (No. 33.) La radioscopia del fascio cardio-vasculare. G. Arcarisi (Palermo).
103 Serums Specifically Toxic for the Suprarenal Capsule. M. L. Della Vida.—Sieri tossici specifici per le calsule surrenali.
104 Sulla tubercolosi primitiva della mamella. R. Caminiti. (Commenced in No. 32.)
105 Contributo alla chirurgia delle vie biliari. G. Mariotti. (Commenced in No. 32.)
106 (No. 34.) *Sull' epididimite tubercolare primaria. M. Delli Santi.
107 Sul valore diagnostico della tubercolina. E. Malfatti.
108 A proposito del neurococco di Bra nel sangue degli epilettici. V. Tirelli.
109 Guarigione di un caso di meningite tubercolare (recovery). G. Avanzino.
110 (No. 35.) Del souffle cardio-pulmonare diastolico. M. DeVivo.

89. **Laryngectomy.**—Cortes removed the larynx in a man of 67 on account of a carcinoma on one vocal cord without glandular involvement, and reports that when seen nearly three years later the man was in perfect health. He was able to make himself understood by those around him by speaking in what Cortes calls the "aphonic pseudo-voice" frequently observed after this operation.

91. **Defensive Action of Omentum.**—Pirrone has been studying further the defensive action of the omentum which De Renzi and Boeri have recently proclaimed as quoted on page 887. He examined the omentum after it had encapsulated the spleen, to determine if the process was similar to that of ordinary encapsulation or whether the omentum undergoes special histologic changes. He experimented on rabbits and cats and found that in fact the spleen, after necrosis from ligature of its vessels, soon became enveloped by the great omentum. The inflammatory process in the membrane entails a rapid formation of connective tissue which not only forms a capsule around the spleen but the cells have a phagocytic action, devouring the detritus of the spleen. By means of this dual action, plastic and phagocytic, the great omentum finally ends by destroying the spleen, behaving toward it like the endothelium of the vessels in respect to a thrombus. After extirpation of the spleen there is nothing to indicate that the great omentum undergoes lymphoid transformation to compensate the missing organ. The phenomena observed establish that the great omentum has a decided protecting action in the peritoneum, and under certain circumstances plays an important part in the defense of the abdominal cavity and hence of the entire body.

92. **Studies of Action of Organ Extracts.**—Ghedini injected dogs and lambs subcutaneously with extracts of various organs, continuing the treatment for one to several months. He then found evidences of inflammation of a degenerative and infiltrative type in the superficial lymphatics, especially those in the axilla and inguinal regions, and in the liver, kidneys, and spleen, while the thyroid gland was in a condition of hyperfunction. No other reaction could be discovered. These results were constant in his 14 animals, and he assumes that the organ extracts acted like toxins in the circulation without any specific affinity for the corresponding organs. He is now engaged on a second series of animals; the results to date apparently confirm those reported.

93. **Tuberculosis and Leukemia.**—Prodi reports a case of the coincidence of these affections and assumes a causal connection between them. He also refers to the mildness of the tuberculosis when associated with leukemia or pseudoleukemia. The tuberculous lesions are generally discovered only at the autopsy.

95. **Pathogenesis of Post-Operative Hematemesis.**—Tonarelli describes 2 cases of fatal hematemesis occurring one and five days after operations on account of biliary lithiasis in the first and a hydatid cyst in the liver in the other case. In both there had been retention of bile, and he thinks it possible that this may have been a factor in the production of the hemorrhagic tendency. The hemorrhage was parenchymatous, involving the entire capillary system of the stomach in the case that came to the dissecting table, and the symptoms had been identical in the other. Hayem reported a case in which absorption of bile from the peritoneum had induced a hemorrhagic diathesis. The chloroform may also have aided in disturbing the balance of the already unstable conditions in the circulatory system. The trauma of the operation with its manipulation of the nerves in the peritoneum and omentum may likewise entail a kind of shock to the vasomotor nerves, and hence induce transient disturbances in the circulation through the viscera, sufficiently intense while they last to explain the phenomena observed.

96. **Tansini's Technic and Results in Abdominal Surgery.**—Palleroni reviews his notes taken during ten years' work as assistant to Tansini. He mentions that the majority of the 131 laparotomies were undertaken on account of tumors. The mortality was 9 per cent. and 119 patients were restored to health. The fatalities were almost exclusively among patients with myomata. In the other groups the mortality was null, or not over 1 per cent. One of the ovarian cysts removed weighed 40 kilograms (88 pounds). The patient was in a very serious condition, but is now in good health. Two days before the operation the patients are prepared by an oil or saline purge, and after the mechanical cleansing of the entire abdomen, shaving and applying turpentine and sulphuric ether, it is washed with 1 per 1,000 sublimate and a cloth wet with the same is applied for half an hour to cover the entire abdomen. Fifteen minutes before the chloroform, 1 cgm. of morphin hydrochlorate is injected. The entire body is warmly covered except for the field of operation, and the temperature of the room is 77 F. The nostrils are kept closed during the chloroform administration to avoid reflex action during the first stage of the narcosis, using a special nose clamp devised by

Tansini. After the abdominal walls are incised the deep is followed by superficial anesthesia, just keeping the patient slightly drowsy. Tansini makes constant use of the galvano-cautery knife, believing that it answers several purposes at once. He prefers a narrow opening into the abdomen, and operates as far as possible extraperitoneally. He never uses an antiseptic in the toilette of the abdomen, fearing that it might irritate, and wipes it dry with gauze sponges wrung out of tepid sterile water. He very rarely drains. The particulars of the various groups and most interesting cases are added.

97. Chemistry of Stomach Under Certain Drugs.—Pirrone's experience has been that in gastric affections the behavior of the hydrochloric acid and of the ferments is not identical; only the pepsin and the rennet behave alike. In Reichmann's disease, along with the increase of acid the ferments will be found much increased, but when the amount of acid diminishes under the influence of atropin, the quantity of the ferments is not modified. The ferments may occur in normal proportions in chronic gastritis with disappearance of the free acid, and also in hypochlorhydria of nervous origin. In cases of carcinoma, the acid secretion is impaired before that of the ferments, which may persist in normal amounts for a long time. Strychnin stimulates the secretion of the acid in chronic gastritis, with not very advanced lesions, and in hypochlorhydria of nervous origin, but it does not affect the ferments. The action of both atropin and strychnin is almost null when administered other than by the mouth, but that of pilocarpin is almost equal by the subcutaneous route. The latter increases the secretion of acid but does not affect that of the ferments. Bitter tinctures, alkalines and alcohol in small doses do not exert any influence on the chemistry of the stomach. Daily lavage of the stomach does not affect the secretion of hydrochloric acid, pepsin or rennet, but reduces the percentage of total acidity in the stomach content.

98. Cytotoxic Serums.—Cafieri's results were practically the same as those obtained by Ghedini mentioned above.

99. Studies of Vaccine.—Casagrandi announces that sterile, filtered vaccine, which was unable to cause the formation of a pustule when inoculated in the skin of dogs or to induce any reaction on the cornea of rabbits, yet conferred immunity on them, so that subsequent injection of active virus did not cause infection as in the controls. Similar tests on man resulted differently. The filtrates and dilutions which confer immunity on the dog do not render human subjects immune. On the other hand, he found that if the dogs were inoculated with the active virus before the cutaneous lesion from the first vaccination had entirely healed, infection resulted, as also when the dogs were inoculated simultaneously with the vaccine and a staphylococcus derived from vaccine pustules on other dogs. He thinks that these facts indicate the participation in the vaccine pustule of some pyogenic germ which finds in it special conditions for its development.

100. Plastic Operation on Gall Bladder.—Baldassari was so successful in his tests of resection and subsequent plastic operations on the gall bladder of dogs that he thinks the method is also applicable to man. He used a flap for the purpose cut from the peritoneum and re-enforced by a thin layer of muscle from the vicinity. The muscular side is turned inward and the flap is sutured so that it extends for several millimeters beyond the defect on all sides. The peritoneal outer side of the flap was sutured with fine silk to the gall bladder. The results were perfect, but he found that the flap served only the purpose of a temporary stop-gap, under which the gall-bladder regeneration proceeded undisturbed until the integrity of the organ was restored. He describes his negative experiences with other kinds of flaps. He cuts the muscle flap along the edge of the abdominal incision and keeps it wrapped in gauze wet with saline solution while the gall bladder is being resected. In some experiments he removed nearly all the wall of the gall bladder on one side, the subsequent plastic operation being as successful as with smaller resections.

106. Experimental Tuberculosis of the Epididymis.—Delli Santi was able to induce tuberculous epididymitis in dogs by introducing tubercle bacilli into the urethra. The bacilli found their way into the epididymis and testicles but caused no harm (during the forty-five days' limit of the tests), unless special conditions were produced which favored their proliferation. One of these conditions was venous stasis, passive congestion from ligature of the vessels in the spermatic cord. Under these circumstances a tubercular lesion soon developed and the infection spread to the entire organ. This research establishes the possibility of contagion from tuberculous lesions in the female genitalia, and explains the fact that the left testicle is most frequently affected, as the anatomic conditions favor the predisposing conditions of defective circulation such as were produced artificially in the experiments.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

A Dictionary of Medical Science. Containing a Full Explanation of the Various Subjects and Terms of Anatomy, Physiology, Medical Chemistry, Pharmacy, Pharmacology, Therapeutics, Medicine, Hygiene, Dietetics, Pathology, Bacteriology, Surgery, Ophthalmology, Otology, Laryngology, Dermatology, Gynecology, Obstetrics, Pediatrics, Medical Jurisprudence, Dentistry, Veterinary Science, etc. By Robley Dunglison, M.D., LL.D., Late Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia. Twenty-third Edition. Thoroughly Revised, with the Pronunciation, Accentuation and Derivation of the Terms. By Thomas L. Stedman, A.M., M.D., Fellow of the New York Academy of Medicine. Cloth. Pp. 1212. Price, $8.00. Philadelphia and New York: Lea Brothers & Co. 1903.

The Practical Medicine Series of Year Books. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School. Volume IX. Physiology, Pathology, Bacteriology, Anatomy, Dictionary. Edited by W. A. Evans, M.S., M.D.; Adolph Gehrmann, M.D., and William Healy, A.B., M.D. August, 1903. Cloth. Pp. 233. Price, $1.25. Chicago: The Year Book Publishers.

A Surgical Handbook. For the Use of Students, Practitioners, House Surgeons and Dressers. By Francis M. Caird, M.B., F.R.C.S. Edin., Assistant Surgeon, Royal Infirmary, Edinburgh, and Charles W. Cathcart, M.B., F.R.C.S. Eng. and Edin., Surgeon, Royal Infirmary, Edinburgh. With Very Numerous Illustrations. Twelfth Edition. Morocco. Pp. 323. Price, $2.75. London: Charles Griffin & Co., Ltd. Chicago: W. T. Keener & Co. 1903.

Modern Microscopy. A Handbook for Beginners and Students. Combining: 1. The Microscope and Instructions for Its Use, by M. I. Cross. 2. Microscopic Objects, How Prepared and Mounted, by Martin J. Cole, Lecturer in Histology at Cooke's School of Anatomy. Third Edition. Entirely Revised and Enlarged, to which is Added 111 Microtomes, Their Choice and Use. Cloth. Pp. 292. Price, $1.50. Chicago: W. T. Keener & Co. 1903.

The Principles and Practice of Hydrotherapy. A Guide to the Application of Water in Disease. For Students and Practitioners of Medicine. By Simon Baruch, M.D., Professor of Hydrotherapeutics in the New York Post-Graduate Medical School and Hospital. Second Edition, Revised and Enlarged. With Numerous Illustrations. Cloth. Pp. 496. Price, $4.00 net. New York: Wm. Wood & Co. 1903.

Takosis, A Contagious Disease of Goats. A Preliminary Report on Its Nature, Cause and Prevention. U. S. Department of Agriculture. By John R. Mohler, V.M.D., A.M., Chief of Pathological Division, Bureau of Animal Industry, and Henry J. Washburn, D.V.S., Acting Assistant Chief of Pathological Division, Bureau of Animal Industry. Paper. Pp. 44. Washington: Government Printing Office. 1903.

A Manual of Operative Surgery. By Sir Frederick Treves, Bart., K.C.V.O., C.B., LL.D., F.R.C.S., Sergeant Surgeon-in-Ordinary to His Majesty, the King. New Edition. Revised by the Author and Jonathan Hutchinson, Jr., F.R.C.S., Surgeon to the London Hospital. With About 450 Illustrations. In Two Volumes. Volume I. Half Morocco. Pp. 750. Philadelphia and New York: Lea Brothers & Co.

A Text-Book of Clinical Anatomy. For Students and Practitioners. By Daniel N. Eisendrath, A.B., M.D., Clinical Professor of Anatomy in the Medical Department of the University of Illinois (College of Physicians and Surgeons). Beautifully Illustrated with 153 Illustrations, a Number in Colors. Cloth. Pp. 515. Price, $5.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

Intracranial Tumors Among the Insane. A Study of 29 Intracranial Tumors Found in 1,642 Autopsies in Cases of Mental Disease. By I. W. Blackburn, M.D., Pathologist to the Government Hospital for the Insane, Washington, D. C. Illustrated by 30 Plates and 65 Microscopical Drawings. Cloth. Pp. 95. Washington: Government Printing Office. 1903.

Diseases of the Skin. An Outline of the Principles and Practice of Dermatology. By Malcolm Morris, Consulting Surgeon to the Skin Department, St. Mary's Hospital, London. With 2 Colored Plates and 58 Plain Figures. New Edition. Flexible Cloth. Pp. 642. Price, $2.50. Chicago: W. T. Keener & Co. 1903.

A Text-Book of Diseases of Women. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania.

Sumptuously Illustrated with Some 650 Mostly Original Illustrations, Many in Colors. Cloth. Pp. 675. Price, $5.00 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

THE PRINCIPLES AND PRACTICE OF SURGERY. Designed for Students and Practitioners. By George Tully Vaughan, M.D. (Univ. of Va.), Assistant Surgeon-General U. S. Public Health and Marine-Hospital Service. Cloth. Pp. 568. Price, $3.50. Philadelphia and London: J. B. Lippincott Company. 1903.

TRANSACTIONS OF THE AMERICAN PEDIATRIC SOCIETY. Fourteenth Session, Held at Boston, May 26, 27 and 28, 1902. With Addenda from the Thirteenth Session and an Index. Vols. I.-XIV., Inclusive. Edited by Walter Lester Carr, M.D. Cloth. Pp. 310. Reprinted from the Archives of Pediatrics. 1902.

ELEMENTARY BACTERIOLOGY. By M. L. Dhingra, M.D., C.M. Edin., Diplomate in State Medicine, University of Cambridge. With Colored Frontispiece and Illustrations in the Text. Cloth. Pp. 145. Price, $1.12 net. London, New York and Bombay: Longmans, Green & Co. 1903.

PHYSICAL DIAGNOSIS OF DISEASES OF THE CHEST. By Richard C. Cabot, M.D., Physican to the Out-patients, Massachusetts General Hospital. Second Revised Edition. With 147 Illustrations. Cloth. Pp. 319. Price, $2.50 net. New York: Wm. Wood & Co. 1903.

A LABORATORY GUIDE IN URINALYSIS AND TOXICOLOGY. By R. A. Witthaus, A.M., M.D., Professor Chemistry, Physics and Toxicology in the Medical Department, Cornell University. Fifth Edition. Cloth. Pp. 115. Price, $1.00 net. New York: Wm. Wood & Co. 1903.

DISEASES OF THE NOSE AND THROAT. By Charles Huntoon Knight, A.M., M.D., Professor of Laryngology, Cornell University Medical College. 147 Illustrations. Cloth. Pp. 423. Price, $3.00 net. Philadelphia: P. Blakiston's Son & Co. 1903.

A NARRATIVE OF MEDICINE IN AMERICA. By James Gregory Mumford, M.D., Assistant Visiting Surgeon to the Massachusetts General Hospital. Cloth. Pp. 508. Price, $3.00. Philadelphia and London: J. B. Lippincott Co. 1903.

TRANSACTIONS OF THE TWENTY-FIFTH ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION. Held at Washington, D. C., May 12, 13 and 14, 1903. Cloth. Pp. 292. New York: Published by the Association. 1903.

NURSES' GUIDE TO SURGICAL BANDAGING AND DRESSINGS. By William Johnson Smith, F.R.C.S., Principal Medical Officer, Seamen's Hospital, Greenwich. Cloth. Pp. 167. Price, $0.75. Philadelphia: J. B. Lippincott Co.

HYPNOTISM. Its History, Practice and Theory. By J. Milne Bramwell, M.B., C.M. Cloth. Pp. 477. Price, $4.50 net. Philadelphia: J. B. Lippincott Co. 1903.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK for the Year 1903. Cloth. Pp. 514. Published by the Society. 1903.

New Patents.

Patents of interest to physicians, September 1 and 8:

737591. Sanitary face shield. Ellen Dempsey, Albany, N. Y.
738009. Medicine applicator. Julius N. Dews, Portsmouth, Va.
738104. Device for lifting sick people in beds and removing them from same. August Gaiser, Oberndorf, Germany.
737625, 737626. Making sulphuric acid and apparatus for manufacturing sulphuric acid. John B. F. Herreshoff, New York.
737838. Shielded clinical thermometer and making same. Solomon C. Hirschberg, New York.
737656. Vaccine and preparing same. La Fayette R. Parsons, Detroit.
737959. Ankle-supporting shoe. Abraham Posner, New York.
738078. Electric belt for medicinal purposes. Ebenezer Smellie, Glasgow, Scotland.
737795. Syringe pipe. Victor C. Van't Woud, New York.
738593. Auriphone. Lewis M. Atkinson, Rockport, Ind.
738274. Making perfumes and disinfectants. Jean Bardin, Brussels, Belgium.
738283. Spine-stretching device. Carl G. P. Blomqvist, Omaha.
738403. Electrovibratory apparatus for therapeutic purposes. Fred H. Brown, Los Angeles.
738603. Syringe nozzle. Haydn Brown, London, England.
738529. Body brace. William B. Dewees, Salina, Kas.
738680. Sanitary cuspidor. Michael E. Headland, Butler, Pa.
738544. Hot water bottle. Frederick H. Jones, Wakefield, Mass.
738461. Preparing oils for medicinal use. Philipp Lewy, Charlottenburg, Germany.
738339. Bust developer. Sidney P. Madeira and J. J. Purcell, Pueblo, Colo.
738352. Binaural stethoscope. William J. Penfold, Newcastle-on-Tyne, England.
738357. Massage apparatus. John A. Reade, Jr., and C. F. Birtman, Chicago.
738583. Pneumatic massage apparatus. Robert Watson, Scranton, Pa.
738508. Irrigating device. Cora I. Wilson, Philadelphia.

The Public Service.

Army Changes.

Movements of Officers of the Medical Department, U. S. Army, under orders from the Adjutant-General's Office, Washington, D. C., for the week ending Saturday, Sept. 19, 1903:

Ames, Roger Post, contract surgeon, is granted two months' leave of absence.

Geer, C. C., first lieut. and asst.-surgeon, is granted leave of absence for one month, to take effect on the expiration of his present sick leave.

Noble, Robert E., first lieut. and asst.-surgeon, having reported his arrival at New York City, is relieved from further duty in the Division of the Philippines, and will proceed to Fort Sheridan for duty.

Straub, Paul F., captain and asst.-surgeon, will proceed, at the proper time, to West Point, Ky., and report, not later than September 25, to Major-General J. C. Bates for temporary duty during the Army maneuvers to be held at that place, and, on the completion thereof, will return to his proper station.

Wales, Philip G., major and surgeon, is granted an extension of one month's sick leave on surgeon's certificate.

Navy Changes.

Changes in the Medical Corps of the Navy for the week ending Sept. 26, 1903:

P. A. Surgeon H. C. Curl, detached from the *New York* and ordered to the *Boston*.

P. A. Surgeon J. S. Taylor, detached from the Bureau of Medicine and Surgery, Navy Department, and ordered to the Naval Hospital, New York City.

Surgeon E. R. Stitt, detached from duty as a member and recorder of the naval and medical examining boards, Washington, D. C., and ordered to resume usual duties.

Surgeon C. F. Stokes, detached from the Bureau of Medicine and Surgery, Navy Department, and ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C.

Asst.-Surgeon A. Stuart, ordered to the Naval Hospital, Naval Home, Philadelphia.

A. A. Surgeon J. L. Taylor, appointed acting assistant surgeon from Sept. 16, 1903.

A. A. Surgeon F. W. Tyree, detached from the Naval Hospital, Port Royal, S. C., and ordered home to wait orders.

Surgeon J. M. Steele, ordered to the Naval Hospital, Port Royal, S. C.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended Sept. 25, 1903:

SMALLPOX—UNITED STATES.

Alabama: Mobile, Sept. 12-19, 2 cases.
California: Los Angeles, Sept. 5-12, 6 cases; San Francisco, Sept. 6-13, 2 cases.
Colorado: Denver, Aug. 22-29, 1 case.
Illinois: Belleville, Sept. 12-19, 3 cases; Chicago, Sept. 12-19, 7 cases.
Maine: Brewer, Sept. 17, present.
Massachusetts: Fall River, Sept. 12-19, 3 cases.
Michigan: Port Huron, Sept. 12-19, 2 cases.
Mississippi: Natchez, Sept. 5-12, 2 cases.
Missouri: St. Louis, Sept. 12-19, 1 case.
New York: New York City, Sept. 12-19, 1 case.
Ohio: Lorain, Sept. 12-19, 1 case.
Pennsylvania: Carbondale, Sept. 14-21, 1 case.
South Carolina: Charleston, Sept. 12-19, 1 case.
Washington: twenty counties, Aug. 1-31, 34 cases, 2 deaths.
Wisconsin: Milwaukee, Sept. 12-19, 2 cases.

SMALLPOX—FOREIGN.

Belgium: Liege, Aug. 29-Sept. 5, 1 case, 1 death.
Brazil: Pernambuco, July 17-31, 5 deaths; Rio de Janeiro, Aug. 8-23, 128 cases, 62 deaths.
China: Shanghai, Aug. 1-8, 2 deaths.
France: Marseilles, Aug. 1-31, 11 deaths; Paris, Aug. 22-29, 2 deaths.
Great Britain: Birmingham, Aug. 29-Sept. 12, 5 cases; Dublin, Aug. 29-Sept. 12, 1 case; Leeds, Sept. 5-12, 11 cases; Liverpool, Aug. 29-Sept. 12, 10 cases, 3 deaths; Manchester, Aug. 29-Sept. 5, 2 cases; Newcastle-on-Tyne, Aug. 22-Sept. 5, 12 cases, 1 death; South Shields, Aug. 2-Sept. 5, 5 cases, 1 death.
India: Bombay, Aug. 11-25, 7 deaths.
Mexico: City of Mexico, Aug. 30-Sept. 13, 5 cases, 5 deaths.
Netherlands: Amsterdam, Aug. 29-Sept. 12, 4 cases.

YELLOW FEVER—UNITED STATES.

Texas: Laredo, Sept. 24-25, 2 cases, 2 deaths.

YELLOW FEVER—FOREIGN.

Brazil: Rio de Janeiro, Aug. 8-23, 8 cases, 1 death.
Colombia: Panama, Sept. 7-14, 4 cases, 1 death.
Mexico: Citas, Aug. 30-Sept. 5, 24 cases, 3 deaths; Merida, Aug. 30-Sept. 5, 11 cases; Motul, Aug. 30-Sept. 5, 1 case; Monterey, Sept. 23, present; Nuevo Laredo, Sept. 17, 1 case; Progreso, Aug. 30-Sept. 5, 1 case, 1 death; Tampico, Aug. 30-Sept. 5, 7 cases, 3 deaths; Tehuantepec, Aug. 30-Sept. 5, 2 deaths; Salina Cruz, Aug. 30-Sept. 5, 4 cases, 2 deaths; Vera Cruz, Sept. 5-12, 44 cases, 14 deaths.

CHOLERA—FOREIGN.

China: Amoy, July 15, present; Shanghai, Aug. 1-8, 1 death.
Straits Settlements: Singapore, July 25-Aug. 1, 5 deaths.
Turkey: Syria, Aug. 17, 472 cases, 428 deaths.

PLAGUE—INSULAR.

Hawaii: Hilo, Sept. 15, 1 death; Honolulu, Sept. 11-12, 2 cases.

PLAGUE—FOREIGN.

Brazil: Rio de Janeiro, Aug. 8-23, 31 cases, 22 deaths.
Chile: Conception, July 11, present; Iquique, July 14-Aug. 8, 53 cases, 34 deaths; Pisaqua, July 11, present; Valparaiso, July 11, present.
China: Fuchau, Aug. 12, present; Hongkong, Aug. 1-22, 13 cases, 12 deaths.
Egypt: Alexandria, Aug. 15-21, 8 cases, 4 deaths; Damiette, Aug. 15-21, 3 cases, 1 death.
India: Bombay, Aug. 11-25, 165 deaths.